Quality and Reliability Report 1996

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TEMIC Quality Policy

Our goal is to achieve total customer satisfaction through everything we do. Therefore, the quality of our products and services is our number one priority.

Quality comes first!

All of us at TEMIC are part of the process of continuous improvement.

Figure 1. TEMIC quality policy

Total Customer Satisfaction

Total customer satisfaction as stated in the 'TEMIC Quality Policy' means that **the customer comes first**. This applies throughout the organization, as we all strive to understand and meet the changing needs of our customers.

In this report, our methodology to achieve total customer satisfaction is shown. Furthermore, quality figures and future targets are given.

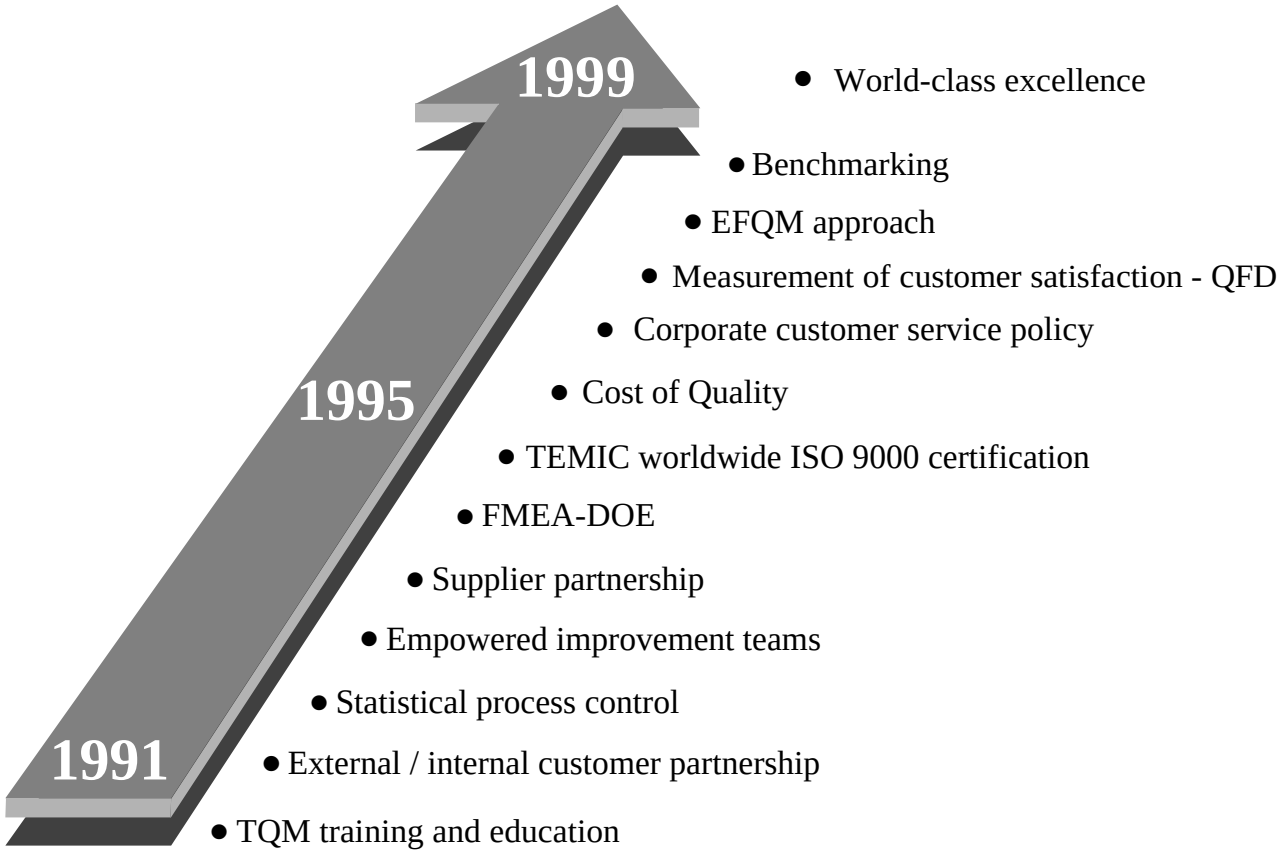


Figure 2. TEMIC road map

Quality System

Quality Program

At the heart of the quality process is TEMIC's worldwide quality program, **TEMIC Quality Movement (TQM)**. This program, which has been in place since the early 90's, is specifically designed to meet rapidly increasing customer quality demands now and in the future. The quality program is controlled by the TEMIC Quality Committee (TQC). The committee implements the Quality Policy and translates its requirements for use throughout the worldwide organization.

The TQC has defined a roadmap with specific targets along the way. The major target is to achieve world-class excellence throughout TEMIC Semiconductors worldwide by 1999.

TEMIC Quality Committee

The TEMIC Quality Committee (TQC) defines and implements the TEMIC quality policy at a corporate level. It acts to harmonize the quality systems of the constituent divisions and to implement Total Quality Management throughout the company worldwide.

Quality Goals and Methods

The goals are straightforward: Customer satisfaction through continuous improvement towards zero defects in every area of our operation. We are committed to meeting our customers' requirements in terms of quality and service. In order to achieve this, we build excellence into our product from concept to delivery and beyond.

- **Design-in Quality**

Quality must be designed into products. TEMIC uses optimized design rules based on statistical information. This is refined using electrical, thermal and mechanical simulation together with techniques such as FMEA and DOE.

- **Built-in Quality**

Quality is built into all TEMIC products by using qualified materials, suppliers and processes. Fundamental to this is the use of SPC techniques by both TEMIC and its suppliers. The use of these techniques, as well as tracking critical processes, reduces variability, optimizing the process with respect to the specification. The target is defect prevention and continuous improvement.

- **Qualification**

All new products are qualified before release by submitting them to a series of mechanical, electrical and environmental tests. The same procedure is used for new or changed processes or packages.

- **Monitoring**

A selection of the same or similar tests used for qualification is also used to monitor the short- and long-term reliability of the product.

- **SPC (Statistical Process Control)**

SPC is an essential part of all TEMIC process control. It has been established for many years and is used as a tool for the continuous improvement of processes by measuring, controlling and reducing variability.

- **TEMIC's Quality System**

All TEMIC's facilities worldwide are approved to ISO9000. In addition, some TEMIC companies hold approval to recognized international and industry standards such as MIL-STD-883, MIL-I-38535, SCC9000, AQAP1, Ford Q101, QS 9000.

The procedures used are based upon these standards and laid down in an approved and controlled Quality Manual.

Total Quality Management

Total Quality Management is a management system combining the resources of all employees, customers and suppliers in order to achieve total customer satisfaction. The fundamental elements of this system are:

- Management commitment
- EFQM assessment methodology
- **E**mpowered **I**mprovement **T**eams (EITs)
- Supplier development and partnership
- Quality tools
- Training
- Quality System

All TEMIC employees from the senior management downwards are trained in the understanding of TQM. Every employee plays its own part in the continuous improvement process which is fundamental to TQM and our corporate commitment to exceed customers' expectations in all areas including design, technology, manufacturing, human resources, marketing, and finance. Everyone is involved in fulfilling this goal. The management believes that this can only be achieved by employee empowerment.

The TEMIC corporate core values; leadership by example, employee empowerment, continuous improvement, total customer satisfaction and business excellence are the very essence of the TEMIC Quality Movement process.

- **Training**

TEMIC maintains that it can only realize its aims if the employees are well-trained. It therefore invests heavily in courses to provide all employees with the knowledge they need to facilitate continuous improvement. A training profile has been established for all employees with emphasis being placed on Total Quality Leadership. Our long-term aim is to continuously improve our training so as to keep ahead of projected changes in business and technology.

- **EFQM Assessment Methodology**

From 1995, TEMIC has started to introduce the EFQM (European Foundation for Quality Management) methodology for structuring its Total Quality Management approach. This methodology, similar to the Malcolm Baldrige process, consists in self-assessing the various TEMIC divisions and facilities according to nine business criteria:

- Leadership
- People management
- Policy and strategy
- Resources
- Processes
- People satisfaction
- Customer satisfaction
- Impact on society
- Business results

The assessments are conducted on a yearly basis by 40 trained and empowered, internal TEMIC assessors. This permits the identification of key-priority improvement projects and the measurement of the progress accomplished.

The EFQM methodology helps TEMIC to achieve world-class business excellence and will very soon bring either a Malcolm Baldrige- or an EFQM Award recognition.

- **Empowered Improvement Teams (EITs)**

At TEMIC we believe that every person in the company has a contribution to make in meeting our target of customer satisfaction. Management therefore empowers employees to higher and higher levels of motivation, thus achieving higher levels of effectiveness and productivity. Empowered improvement teams, which are both functional and cross-functional, combine the varied talents from across the breadth of the company. By taking part in training, these teams are continually searching for ways to improve their jobs, achieving satisfaction for themselves, the company and – most important of all – the customer.

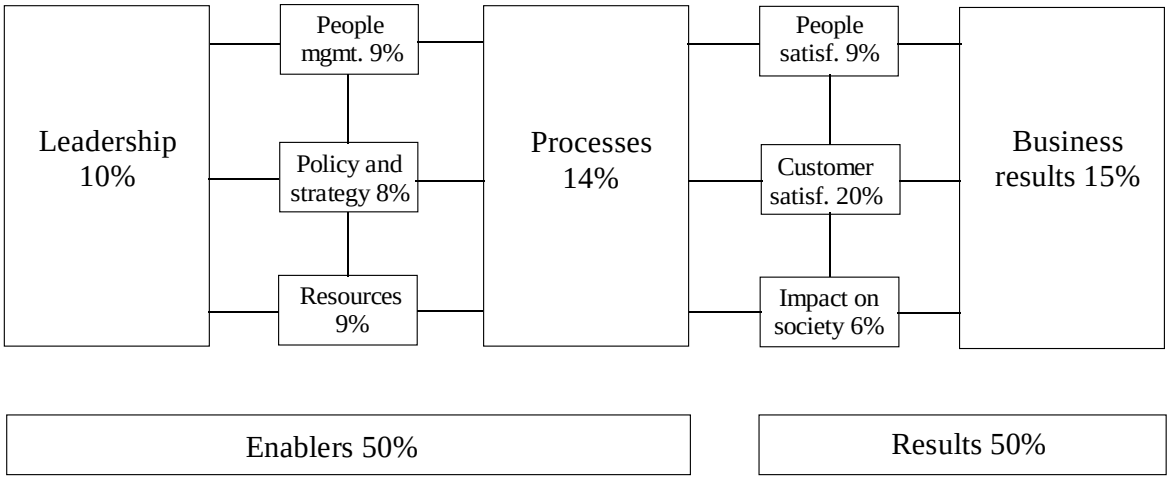


Figure 4. EFQM criteria for self-assessment

TQM Tools

As part of its search for excellence, TEMIC employs many different techniques and tools. Some of them are listed here:

- **Cost of Quality**

Cost of Quality is used as a performance indicator. It is defined as the sum of the costs of:

- Internal failure
- External failure
- Exceeding requirements
- Lost opportunities
- Prevention
- Appraisal

The goals are set as part of the company goals, initially at director level. All employees and EIT are expected to be aware of, determine, and track their associated costs.

- **Auditing**

As well as third-party auditing employed for approval by ISO 9000 and customers, TEMIC carries out its own internal and external auditing. There is a common auditing procedure for suppliers and sub-contractors between the TEMIC entities. This procedure is also used for inter-company auditing between the facilities within TEMIC. It is based on the "Continuous Improvement" concept with heavy emphasis on the use of SPC and other statistical tools for the control and reduction of variability.

Internal audits are carried out on a routine basis. They include audits of satellite facilities (i.e., sales offices, warehousing etc.). Audits are also used widely to determine attitudes and expectations both within and outside the company.

- **Failure Mode and Effect Analysis (FMEA)**

FMEA is a technique for analyzing the possible methods of failure and their effect upon the performance/reliability of the product/process. Process FMEAs are performed for all processes. In addition, product FMEAs are performed on all critical or custom products.

- **Design of Experiments (DOE)**

There is a series of tools which may be used for the statistical design of experiments. It consists of a formalized procedure for optimizing and analyzing experiments in a controlled manner. Taguchi and factorial experiment design are included in this. They provide a major advantage in determining the most important input parameters, making the experiment more efficient and promoting common understanding amongst team members of the methods and reasoning used.

- **Gauge Repeatability and Reproducibility (GR&R)**

This technique is used to determine an equipment's suitability for purpose. It is used to make certain that all equipment is capable of functioning to the required accuracy and repeatability. All new equipment is approved before use by this technique.

- **Quality Function Deployment (QFD)**

QFD is a method for translating customer requirements into recognizable requirements for TEMIC's marketing, design, research, manufacturing and sales (including aftersales). QFD is a process which brings together the life cycle of a product from its conception, through design, manufacture, distribution and use until it has served its expected life.

Quality Service

TEMIC believes that quality of service is equally as important as the technical ability of its products to meet their required performance and reliability. Our objectives therefore include:

- On-time delivery
- Short reaction time to customers' requests for information

- Rapid and informed technical support
- Fast handling of complaints
- A partnership with our customers

We have therefore implemented a customer service plan and charter which details our service targets. This is detailed in our brochure **The Business of Customer Service**. "The customer comes first" is a fundamental part of this charter.

- **Customer Complaints**

Complaints fall mainly into two categories:

- Logistical
- Technical

TEMIC has a procedure detailing the handling of complaints. Initially complaints are forwarded to the appropriate sales office where in-depth information describing the problem is of considerable help in giving a fast and accurate response. If it is necessary to send back the product for logistical reasons, the Sales Office issues an RMA (**R**eturned **M**aterial **A**uthorization) number. On receipt of the goods in good condition, credit is automatically issued.

If there is a technical reason for complaint, a sample is sent to the Sales Office for forwarding to the Failure Analysis department of the supplying facility. The device's receipt will be acknowledged and a report issued on completion of the analysis. The cycle time for this analysis has set targets and is constantly monitored in order to improve the turnaround time. Failure analysis normally consists of electrical testing, functional testing, mechanical analysis (including X-ray), decapsulation, visual analysis and electrical probing. Other specialized techniques (i.e. LCD, thermal imaging, SEM, acoustic microscopy) may be used if necessary.

If the analysis uncovers a quality problem, a CAR (**C**orrective **A**ction **R**eport – in -8D format if required) will be issued. Any subsequent returns are handled with the RMA procedure.

- **Change Notification**

All product and process changes are controlled and released via ECN (**E**ngineering **C**hange **N**otification). This requires the approval of the relevant departments. In the case of a major change, the change is forwarded to customers via Sales/ Marketing before implementation. Where specific agreements are in place, the change will not be implemented unless approved by the customer.

- **Ship-to-Stock/Ship-to-Line (STS/STL)**

There are very low levels of rejects being delivered to customers. Many customers now require devices to be shipped direct to stock or to the production line by omitting any goods inwards inspection. TEMIC welcomes such agreements as part of its customer partnership program which promises an open approach in every aspect of its business.

A product will only be supplied as STS or STL if there is a valid agreement in place between the two companies. Such an agreement details the quality level targets agreed upon between the companies and the methods to be used in case of problems.

Quality and Reliability Assurance Program

Though both quality and reliability are designed into all TEMIC products, they must be assured by three basic programs:

- **A**verage **O**utgoing **Q**uality (AOQ) – 100% testing is followed by sample testing to measure the defect level of the shipped product. This defect level (AOQ) is measured in ppm (**p**arts **p**er **m**illion).
- Reliability qualification program – to assure that the design, process or change is reliable.
- Reliability monitoring program – to measure and assure that there is no decrease in the reliability of the product.

AOQ Program

Before leaving the factory, all products are sampled after 100% testing to ensure that they meet a minimum quality level and to measure the level of defects. The results are accumulated and expressed in ppm (parts per million). They are the measure of the average number of potentially failed parts in deliveries over a period of time. The sample size used is determined by AQL or LTPD tables depending upon the product. No rejects are allowed in the sample.

The AOQ value is calculated monthly using the method defined in JEDEC 16.

$$\mathrm{AOQ} = \frac{\mathrm{PA} \times (1 - \mathrm{LRR})}{100}\ \mathrm{ppm}$$

$$\mathrm{PA} = \frac{\text{number of devices rejected } \times 10^6}{\text{total number of devices tested}}\ \mathrm{ppm}$$

$$\mathrm{LRR} = \frac{\text{number of lots rejected} \times 100}{\text{total number of lots tested}}\ \%$$

The AOQ values are recorded separately with regard to electrical and mechanical (visual) rejects by product type and technology.

Reliability and Qualification

Qualification is used as a means of verifying that a new product or process meets specified reliability requirements. This is also used to verify and release changes to products or processes including new materials, packages and manufacturing locations. At the same time it provides a means to obtain information on the performance and reliability of new products and technologies.

There are three types of qualification and release:

- Wafer process/technology qualification
- Package qualification
- Product/device qualification

The actual qualification procedure depends on which of these (or combinations of these) are to be qualified. Normally there are three categories of qualification in order of degree of qualification and testing required:

- New technology or process (this includes a new design on a new process)
- New product or re-designed product using a qualified process
  New package including piece-part or material change
  New manufacturing location
- Minor change of process, assembly or package

Accelerated testing is normally used in order to produce results fast. The stress level employed depends upon the failure mode investigated. The stress test is set so that the level used gives the maximum acceleration without introducing any new or untypical failure mode.

The tests used consist of a set of the following:

- High temperature life test (static)
- High temperature life test (dynamic)
- HTRB (**H**igh **T**emperature **R**everse **B**ias)
- HTGB (**H**igh **T**emperature **G**ate **B**ias)
- Power cycling
- Humidity 85/85 (with or without bias)
- HAST (**H**ighly **A**ccelerated **S**tress **T**est)
- Pressure pot (PCT, autoclave)
- Temperature cycling
- Thermal shock
- High-temperature storage
- Low-temperature storage
- Marking permanency
- Resistance to solvents
- Lead integrity
- Salt atmosphere
- Solderability
- Resistance to solder heat
- Mechanical shock (not plastic packages)
- Vibration (not plastic packages)
- ESD characterization
- Latch-up immunity

SMD devices only are subjected to pre-conditioning to simulate board assembly techniques using the methods defined in JEDEC A113 before being subjected to stresses.

Normally, the endpoint tests are related to the data sheet or to specified parameters. Additionally, they may include:

- Destructive physical analysis
- X-ray
- De-lamination testing using scanning acoustic microscope
- Thermal imaging
- Thermal and electrical resistance analysis

Reliability Monitoring

The monitoring program consists of short-term monitoring to provide fast feedback on a regular basis in case of a reduction in reliability and to measure the **E**arly-life **F**ailure **R**ate (EFR). At the same time, longer-term monitoring is used to determine the longer-term steady-state failure rate (LFR - FIT rate). The tests used are a subset from those used for qualification and consist of:

- Life tests
- Humidity tests
- Temperature-cycling tests
- Solderability tests
- Resistance-to-solder-heat test

The actual tests used depend on the product tested.

Reliability Principles

Reliability is the probability of survival as a function of time and stress, and is usually expressed in terms of FITs (failures in 10^9 device hours). It is expressed as:

$$F(t) + R(t) = 1 \qquad \text{or } R(t) = 1 - F(t)$$

where: $F(t)$ = probability of failure

$R(t)$ = probability of survival

$$F(t) = 1-e^{-\lambda t}$$

where

λ = instantaneous failure rate

t = time

thus,

$$R(t) = e^{-\lambda t}$$

The life-time distribution or hazard rate curve is shown on the next page. This curve is also known as the 'bath-tub curve' because of its shape. There are three basic sections:

- Early-life failures (infant mortality)
- Operating-life failures (random failures)
- Wear-out

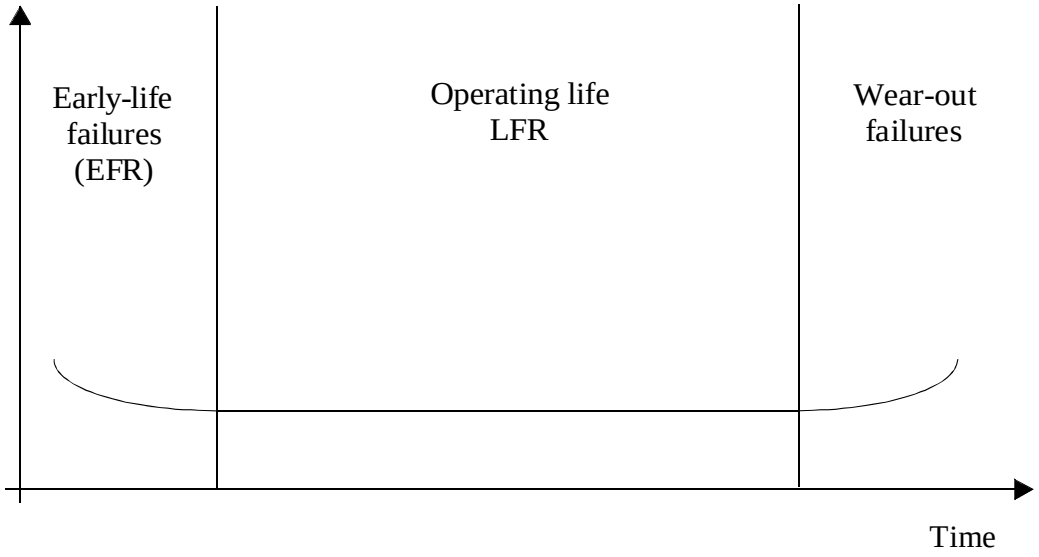


Figure 4. Bath tub curve

The failure rate (λ) during the constant (random) failure period is determined from life-test data. The failure rate is calculated from the formula:

$$\lambda = \frac{r}{N \times t} \text{ hours}^{-1} = \frac{r}{C} \text{ hours}^{-1}$$

where

r = number of observed failures

N = sample size

t = time

C = number of component hours

The result is expressed in either

% per 1000 component hours by multiplying by 10^5

or in

FITs by multiplying by 10^9

Example 1

500 devices were operated over a period of 2000 hours with

1 failure after 1000 hours and

1 failure after 2000 hours

The failure rate of the given example can be calculated as follows:

$$\lambda = \frac{2}{1 \times 1000 + 499 \times 2000} \text{ hours}^{-1}$$

$$= \frac{2}{1 \times 10^6} \text{ hours}^{-1} = 2 \times 10^{-6} \text{ hours}^{-1}$$

That means that this sample has an average failure rate of

0.2%/ 1000 hours or **2000 FIT**

Observed failure rates as measured above are for the specific lot of devices tested. If the predicted failure rate for the total population is required, statistical confidence factors have to be applied.

The confidence factors can be obtained from "chi square" (χ^2) charts. Normally, these charts show the value of ($\chi^2/2$) rather than χ^2. The failure rate is calculated by dividing the $\chi^2/2$ factor by the number of component hours.

$$\lambda_{pop} = \frac{(\chi^2 / 2)}{C} \text{ or } \frac{(\chi^2 / 2)}{N \times t}$$

The values for $\chi^2/2$ are given in table 1.

Table 1. $\chi^2/2$ chart

Number of Failures	Confidence Level	
	60%	90%
0	0.93	2.31
1	2.00	3.89
2	3.08	5.30
3	4.17	6.70
4	5.24	8.00
5	6.25	9.25
6	7.27	10.55

Example 2

Using Example 1 with a failure rate of 2000 FIT and 2 failures:

$\chi^2/2$ at 60% confidence is 3.08

$$\lambda_{pop} = \frac{3.08}{1\times10^6} = 3.08\times10^{-6} = 3080 \text{ FIT}$$

This means that the failure rate of the population will not exceed 3080 FIT with a probability of 60%.

- **Accelerated Stress Testing**

In order to be able to assure long operating life with a reasonable confidence, TEMIC carries out accelerated testing on all its products. The normal accelerating factor is the temperature of operation. Most failure mechanisms of semiconductors are dependent upon temperature. This temperature dependence is best described by the Arrhenius equation.

$$\lambda_{T_2} = \lambda_{T_1} \times e^{\left[\frac{E_A}{k}\times\left(\frac{1}{T_1}-\frac{1}{T_2}\right)\right]}$$

where

k = Boltzmann's constant 8.63×10^{-5} eV/K

E_A = Activation energy (eV)

T_1 = Operation temperature (K)

T_2 = Stress temperature (K)

λ_{T_1} = Operation failure rate

λ_{T_2} = Stress-test failure rate

Using this equation, it is possible from the stress test results to predict what would happen in use at the normal temperature of operation.

- **Activation Energy**

Provided the stress testing does not introduce a failure mode which would not occur in practice, this method gives an acceptable method for predicting reliability using short test periods compared to the life of the device. It is necessary to know the activation energy of the failure mode occurring during the accelerated testing. This can be determined by experiment. In practice, it is unusual to find a failure or if there is, it is a random failure mode. For this reason an average activation energy is normally used for this calculation. Though activation energies can vary between 0.3 and 1.5 eV, under the conditions of use, activation energies of between 0.6 and 0.9 eV are used depending upon the technology.

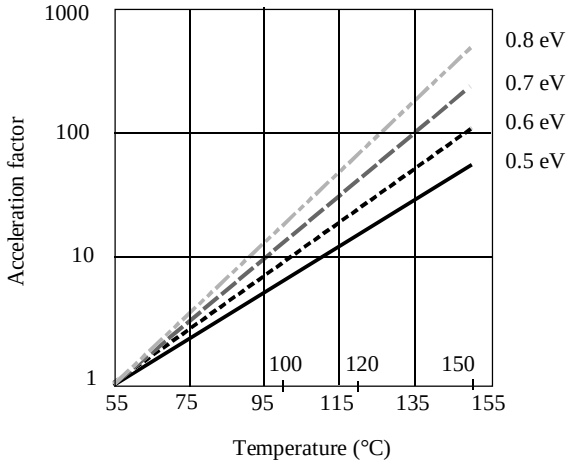


Figure 5. Acceleration factor for different activation energies normalized to T_J = 55°C

Failure rates are quoted at an operating temperature of 55°C and 60% confidence using an activation energy (E_A) of 0.6 eV for MOS, 0.7 eV for bipolar and 0.8 eV for optoelectronic products.

Example 3

In Example 2, the life test was carried out at 150°C so to correct to an operating temperature of 55°C.

$T_1 = 273 + 55 = 328\,K$

$T_2 = 273 + 150 = 423\,K$

$$\text{Acceleration factor} = \frac{\lambda_{423}}{\lambda_{328}} = 258$$

thus,

$$\lambda_{328} = \frac{\lambda_{423}}{258} = \frac{3080}{258} =$$ **12 FIT (at 55°C with a confidence of 60%)**

This figure can be re-calculated for any operating/junction temperature using this method.

- **EFR (Early Life Failure Rate)**

This is defined as the proportion of failures which will occur during the warranty period of the system for which they were designed. In order to standardize this period, TEMIC uses 1000 operation hours as the reference period. This is the figure also used by the automotive industry; it equates to one year in the life of an automobile. In order to estimate this figure, TEMIC normally operates a sample of devices for 48 or 168 hours under the accelerated conditions detailed above. The Arrhenius law is then used as before to calculate the failure rate at 55°C with a confidence level of 60%. This figure is multiplied by 1000 to give the failures in 1000 hours and by 10^6 to give a failure in ppm. All EFR figures are quoted in ppm (parts per million).

Wafer Level Reliability Testing

Due to the increasing demand for complex devices with reduced geometry, TEMIC is committed to enhancing and improving process and product quality through the use of **W**afer **L**evel **T**esting (WLT). Through the use of custom-designed and standard test devices and structures, the on-going design as well as the process quality and reliability are monitored both at the wafer and package level. When implemented in the manufacturing process, they provide a rapid means of monitoring metal integrity and parameter stability.

The main test are:

- Electro-migration

Commonly known as SWEAT (**S**tandard **W**afer-Level **E**lectro-migration **T**est), this test is used as a metallization process quality monitor.

- Hot carrier integrity

This technique is used to develop life models particularly in CMOS products. It can also be used to evaluate process variations in poly CD (**C**ritical **D**imensions).

- Gate oxide integrity

These tests are carried out on large- and small-area capacitors for defect density measurement and intrinsic breakdown. Test methods include VRDB (**V**oltage **R**amp **D**ielectric **B**reakdown) and TDDB (**T**ime-**D**ependent **D**ielectric **B**reakdown).

- Mobile ion instability

Special sensitive transistors are used together with built-in heaters to measure the effect of the movement of mobile ions at the interface region.

Handling for Quality

- **Electrostatic Discharge (ESD) Precautions**

Electrostatic discharge is defined as the high voltage which is generated when two dissimilar materials move in contact with one another. This may be by rubbing (i.e. walking on a carpet) or by hot air or gas passing over an insulated object. Sometimes, ESD is easily detectable as when a person is discharged to ground (shock).

Electronic devices may be irreversibly damaged when subjected to this discharge. They can also be damaged if they are charged to a high voltage and then discharged to ground.

Damage due to ESD may occur at any point in the process of manufacture and use of the device. ESD is a particular problem if the humidity is low (< 40%) which is very common in non-humidified but air-conditioned buildings. ESD is not just generated by the human body but can also occur with ungrounded machinery.

ESD may cause a device to fail immediately or damage a device so that it will fail later. Whether this happens or not, usually depends on the energy available in the ESD pulse.

All ESD-sensitive TEMIC products are protected by means of

- Protection structures on chip
- ESD protection measures during handling and shipping

TEMIC has laid down procedures which detail the methods to be used for protection against ESD. These measures meet or exceed those of CECC 00015 or MIL-STD-1686, the standards for ESD-protective and preventative measures. These include the use of:

- Earthed wrist straps
- Earthed benches
- Conductive floors
- Protective clothing
- Controlled humidity

It also lays down the methods for routinely checking these and other items such as the earthing of machines.

A semiconductor device is only completely protected when enclosed in a “Faraday Cage”. This is a completely closed conductive container (i.e., sealed conductive bag or box).

Most packaging material (i.e. tubes) used for semiconductors is now manufactured from anti-static material or anti-static-coated material. This does not mean that the devices are completely protected from ESD, only that the packing will not generate ESD. Devices are completely protected only when surrounded on all sides by a conductive package.

It should also be remembered that devices can equally as easily be damaged by discharge from a high voltage to ground as vice-versa.

Testing for ESD resistance is part of the qualification procedure. The methods used are detailed in MIL-STD-883 Method 3015.7 (Human Body Model) and EOS/ESD-S5.1-1993 (Machine Model) specification.

- **Soldering**

All products are tested to ascertain their ability to withstand the industry standard soldering conditions after storage. In general, these conditions are as follows.

- Hand soldering: 260^{o}C, 2 mm from the device body for 10 secs
- Wave soldering: Double-wave soldering according to CECC 00802 maximum 2 × total restricted to 3 soldering operations
- Reflow soldering: convection soldering according to CECC 00802 with a maximum temperature of 260^{o}C, maximum 2 × with the total restricted to 3 soldering operations, IR soldering to CECC 00802 with a maximum temperature of 245^{o}C maximum 2 × with the total restricted to 3 soldering operations

Note: certain components may have limitations due to their construction.

- **Dry pack**

When being stored, certain types of device packages can absorb moisture which is released during the soldering operations, thus causing damage to the device. The so-called “popcorn” effect is such an example. To prevent this, **S**urface **M**ount **D**evices (SMD) are evaluated during qualification, using a test consisting of moisture followed by soldering simulation (pre-conditioning) and then subjected to various stress tests. Any devices which are found to deteriorate under these conditions are packaged in “dry pack”.

The dry-packed devices are packed generally according to EIA-583 “Packaging Material Standards for Moisture Sensitive Items”, IPC-SM-786 “Recommended Procedures for Handling of Moisture Sensitive Plastic IC Packages”.

The following are general recommendations:

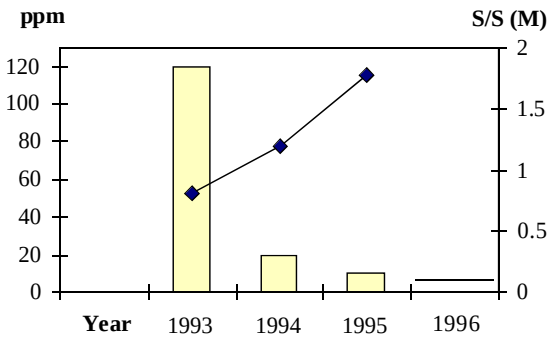
- Shelf life in the packaging at < 40^{o}C and 90% RH is 12 months.
- After opening, the devices should be mounted within the time stated on the label (between 6 and 168 hours depending on the package and factory atmosphere) or stored at a humidity < 20% RH.
- If the exposure or storage time is exceeded, the devices should be baked:
  - Low-temperature packaging - 192 hours at 40^{o}C and 5% RH
  - High-temperature packaging - 24 hours at 125^{o}C

Quality and Reliability Data

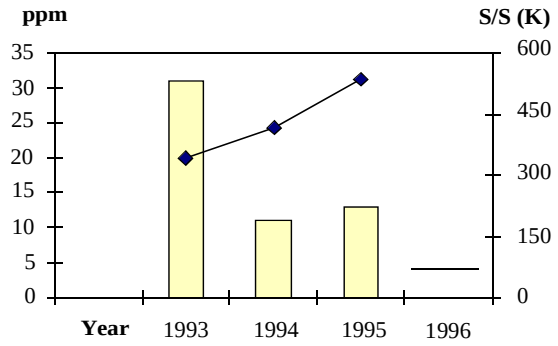
Average Outgoing Quality (AOQ)

Integrated Circuits

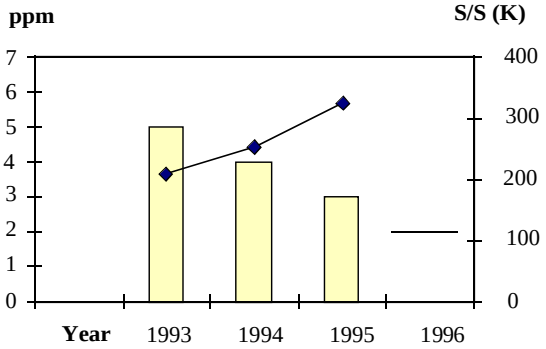
CMOS ICs (ASICs, Memories and µCs)



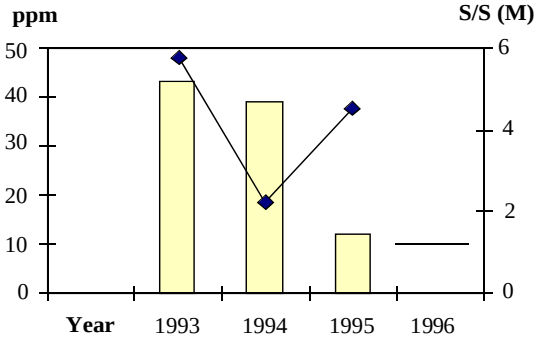
CMOS ICs (others)



BICMOS/BICDMOS ICs

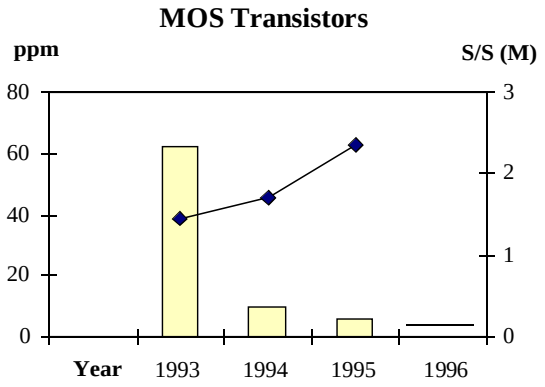


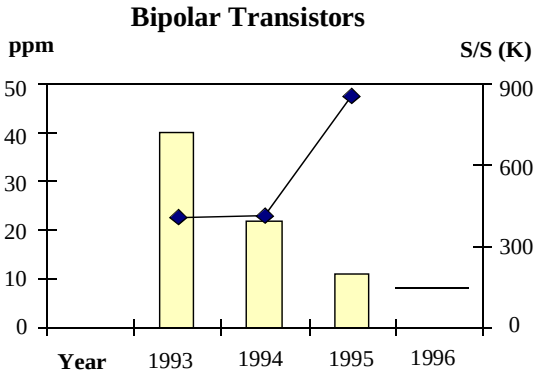
Bipolar ICs

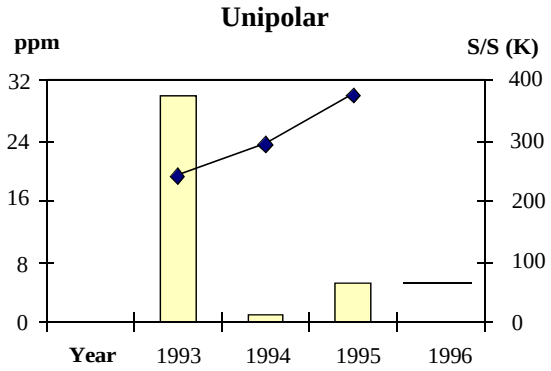


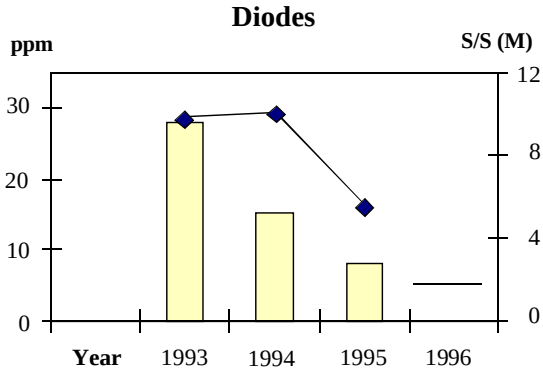
Legend: columns = AOQ values in ppm
curve = sample size
—— = target 1996

Discretes

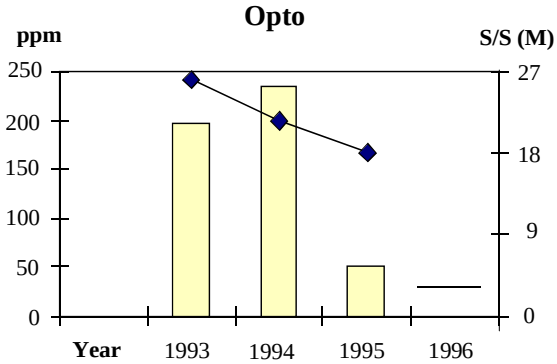








Optoelectronics

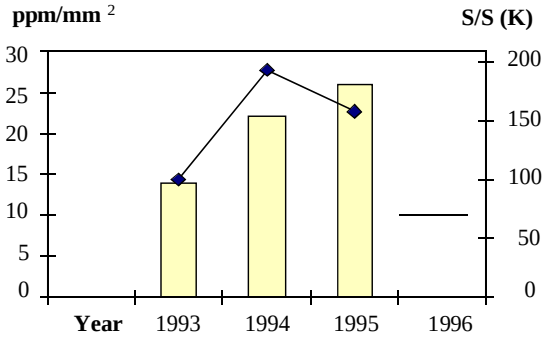


Legend: columns = AOQ values in ppm
curve = sample size
— = target 1996

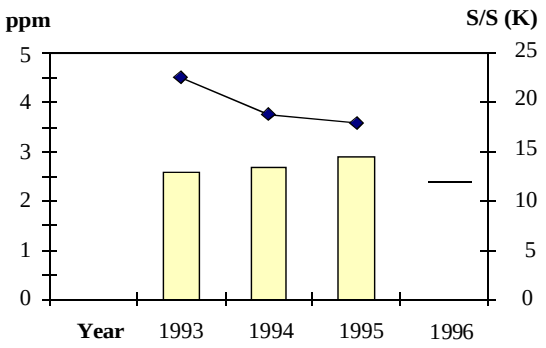
Early Failure Rate (EFR)

Integrated Circuits

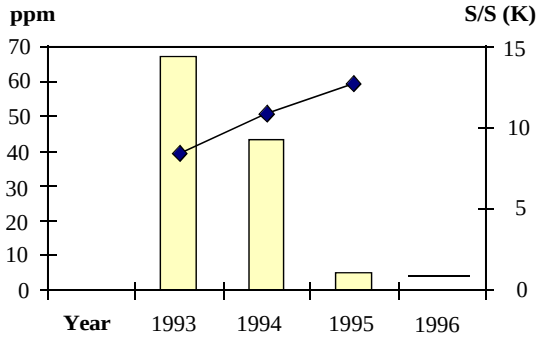
CMOS ICs (ASICs, Memories and µCs)



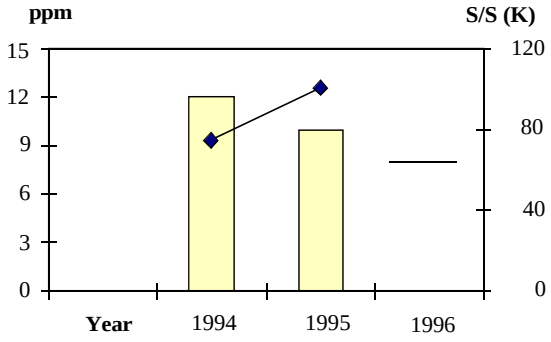
CMOS ICs (others)



BICMOS/BICDMOS ICs

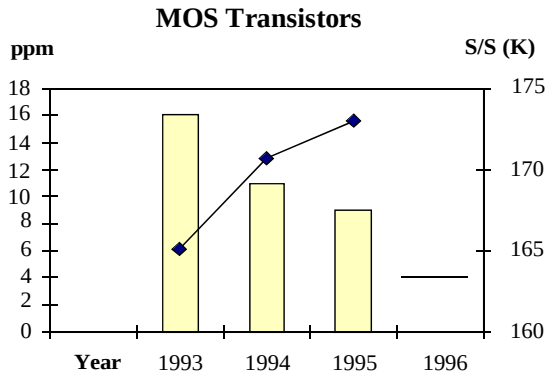


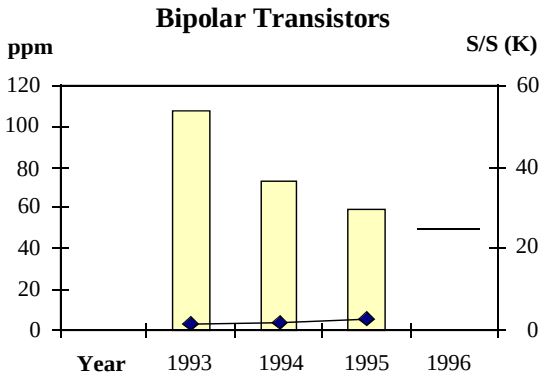
Bipolar ICs

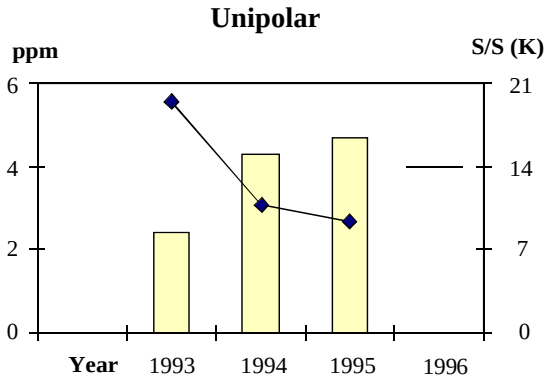


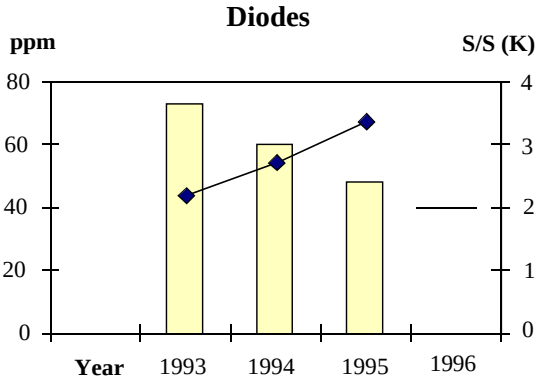
Legend: columns = EFR values in ppm
curve = sample size
—— = target 1996

Discretes

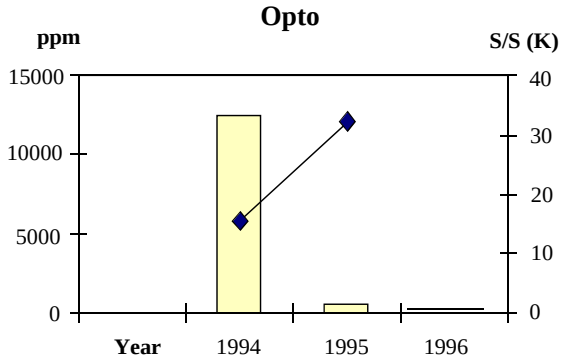








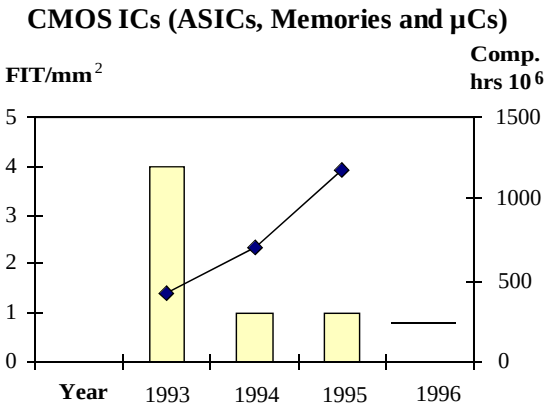
Optoelectronics

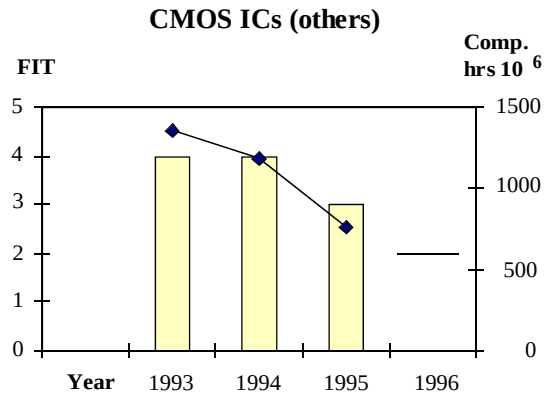


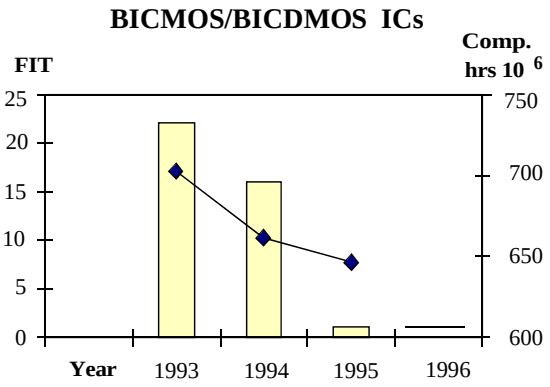
Legend: columns = EFR values in ppm
curve = sample size
—— = target 1996

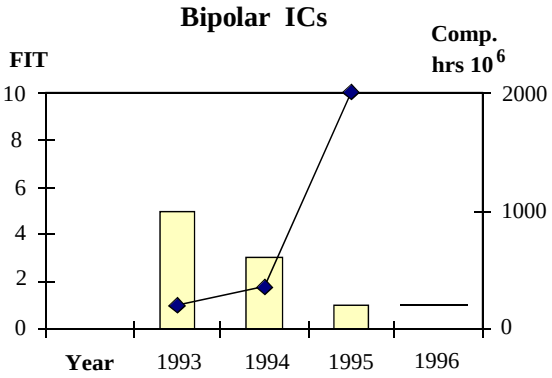
Latent Failure Rate (LFR)

Integrated Circuits



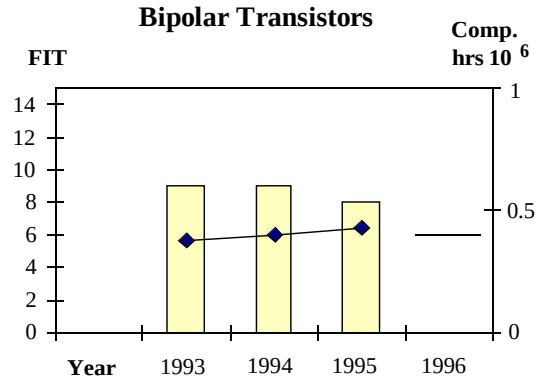


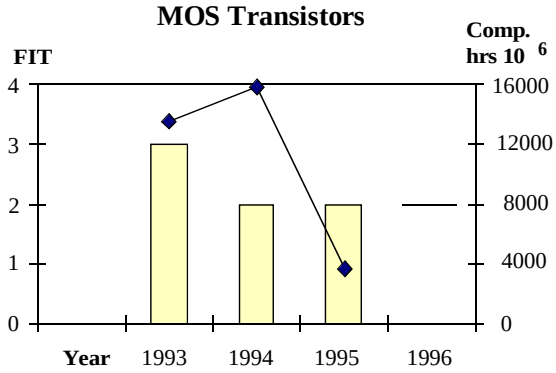


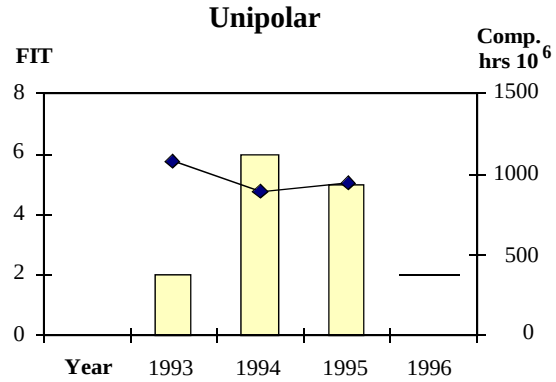


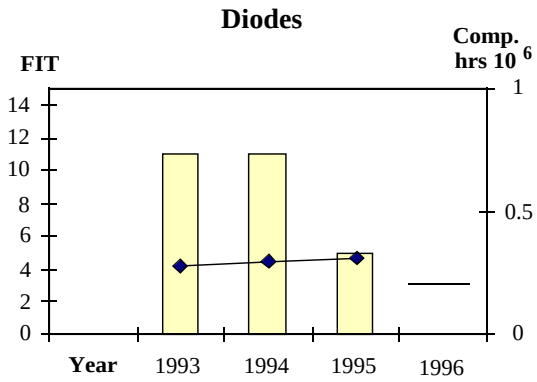
Legend: columns = LFR values in FIT (10^9)
curve = component hours
—— = target 1996

Discretes

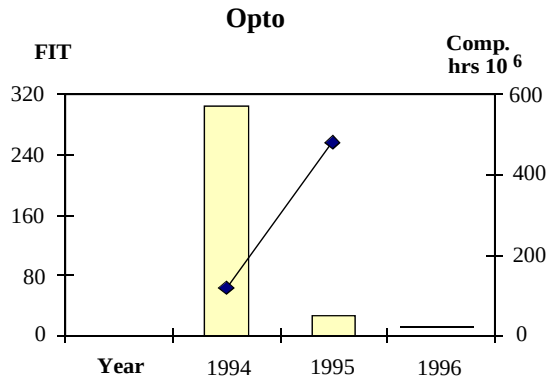








Optoelectronics



Legend: columns = LFR values in FIT (10^9)
curve = component hours
—— = target 1996

Technology Description

Integrated Circuits

Technology	Description
SCMOS I	0.8 µ dual-metal, single-poly CMOS
SCMOS II	0.6 µ dual-/triple-metal, single-/dual-poly CMOS
SCMOS A	0.8 µ dual-metal, dual-poly CMOS-analog
SAJI	1.6 µ single-metal CMOS
RAM 2	0.8 µ dual-metal, single-/dual-poly CMOS
SCMOSNV	0.8 µ CMOS / FAMOS dual-metal, single-poly
LVSGCMOS	Low-voltage silicon gate (3 µ) CMOS
HVMGCMOS	High-voltage metal gate (5 µ) CMOS
HVSGCMOS	High-voltage silicon gate (5 µ) CMOS
HVSGIICMOS	High-voltage silicon gate (3 µ) CMOS
LDMOS	Lateral double-diffused (5 µ) MOS
BIPMOS	Bipolar P-channel (5 µ) MOS
BICMOS	0.8 µ dual-metal, dual-poly BiCMOS
BICMOS 15	Single-metal (3 µ) merged bipolar CMOS
SI II	500-V single-/dual-metal (5 µ) BiCDMOS
SI III	500-V single-/dual-metal (5 µ) BiCDMOS
SI IV	500-V single-/dual-metal (5 µ) BiCDMOS
I2L	Single-metal (4 µ) bipolar
UNI	Single- or dual-metal (6 µ) bipolar
STD	Single-metal (6 µ) bipolar
UHF	Dual-metal UHF (2.5 µ) bipolar

Discretes and Opto

Technology	Description
N LP B	N-channel, low-power B-cell MOS
N HV B	N-channel, high-voltage B-cell MOS
P B	P-channel B-cell MOS
N 1.6	N-channel 1.6 M cell MOS
N 2.5	N-channel 2.5 M cell MOS
N 5.9	N-channel 5.9 M cell MOS
P MOS	P-channel MOS
N DMOS	N-channel double-diffused MOS
P 1.6	P-channel low-power 1.6 M cell MOS
P LP B	P-channel low-power B-cell MOS
N LP D	N-channel low-power dense cell MOS
N 8.0	N-channel 8.0 M cell trench MOS
N 12.0	N-channel 12.0 M cell trench MOS
LP MG V	Low-power metal gate V-groove MOS
MOSMIC	Smart N-channel MOS
N JFET	N-channel JFET
N DUAL J-FET	N-channel dual JFET
P JFET	P-channel JFET
BIPOLAR	Bipolar transistor
DIODE	Bipolar diode, zener or rectifier
LED	Light-emitting diodes
DISPLAY	LED displays
DETECTOR	IR detectors and sensors
EMITTER	IR emitters
COUPLER	Optocouplers and isolators
MODULE	Photomodules and IrDA modules

Package Description

Where not industry standard or JEDEC registered, the following package abbreviations are used:

Package	Description
PDIP	Plastic dual-inline package
PSOP	Plastic small-outline package
PSSOP	Plastic shrink small-outline package

Package	Description
PLCC	Plastic leaded chip carrier
PQFP	Plastic quad flatpack
PTSSOP	Plastic thin shrink small-outline package

Package	Description
CDIP	Ceramic dual-inline package
SDIP	Side-brazed dual-inline package
MQFP	Metal-lidded quad flatpack

Environmental Testing (Packages)
Integrated Circuits – Plastic

	Package Type	Humidity 85/85	HAST/ PCT	Temp. Cycle or Therm. Shock	Solder-ability*	Solder Heat
Sample	PDIP	5182	22521	19044	3577	1170
Rejects		2	2	5	0	0
Sample	PSOP	7945	181426	25532	1938	1250
Rejects		7	9	17	0	0
Sample	PSSOP	150	1599	1600	320	140
Rejects		0	0	0	0	7
Sample	PLCC	2359	4628	6360	880	1640
Rejects		3	0	14	0	1
Sample	PQFP	801	0	585	0	855
Rejects		0	0	1	0	1
Sample	PTSSOP	350	1680	954	0	0
Rejects		0	0	0	0	0

* = this is also an in-line monitor

Integrated Circuits – Hermetic (as per MIL-STD-883 method 5005)

Package		D1	D2	D3	D4	D5	D6	D7	D8
CDIP	Qty	360	78	517	493	337	72	75	155
	Rej	0	0	0	0	0	0	0	0
SDIP	Qty	105	21	120	120	105	21	21	0
	Rej	0	0	0	0	0	0	0	0
CLCC	Qty	135	30	162	176	15	30	0	0
	Rej	0	0	0	0	0	0	0	0
LCC	Qty	135	30	162	176	172	30	0	0
	Rej	0	0	0	0	0	0	0	0
PGA	Qty	90	15	75	90	75	15	15	0
	Rej	0	0	0	0	0	0	0	0
TO100	Qty	0	0	0	0	0	0	0	0
	Rej	0	0	0	0	0	0	0	0
MQFP	Qty	45	6	64	64	30	9	6	0
	Rej	0	0	0	0	0	0	0	0
MFP	Qty	0	0	0	0	0	0	0	0
	Rej	0	0	0	0	0	0	0	0
CQP	Qty	45	9	60	60	45	12	9	15
	Rej	0	0	0	0	0	0	0	0

Discretes

	Package/ Type	Humidity 85/85	HAST/ PCT	Temp. Cycle or Thermal Shock	Solder-ability*	Solder Heat
Sample	DO35/41/30/214/220	900	800	2240	260	992
Rejects		1	1	3	0	0
Sample	SOD57/80/64/MELF	1020	0	1768	280	768
Rejects		1	0	0	0	0
Sample	SOT23/143 TO50/51	1200	4000	3754	520	2070
Rejects		5	8	0	0	1
Sample	TO251/220/247	13449	18822	16238	266	320
Rejects		2	6	146	0	0
Sample	TO92/226	10148	13393	11079	1430	0
Rejects		2	1	14	0	0
Sample	TO252/263	442	587	830	254	0
Rejects		0	0	0	0	0
Sample	TO18/39/5271/72/78/206	0	100	3950	2000	0
Rejects		0	0	3	0	0
Sample	LITTLE FOOT	Included with PSOP				
Rejects						
Samples	LITE FOOT	Included with PTSSOP				
Reject						

* = this is also an in-line monitor

Optoelectronics

	Package/ Type	Humidity 85/85	HAST/ PCT	Temp. Cycle or Thermal Shock	Solder-ability*	Solder Heat
Sample	TH (through hole)	3137	0	10594	0	0
Rejects		74	0	151	0	0
Sample	SMD (surface mount)	144	0	1920	0	2880
Rejects		0	0	1	0	0

* = this is also an in-line monitor

Product and Reference List

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
1N4148	Small signal	Diode	DO35	8	40	5
1N4150	Small signal	Diode	DO35	8	40	5
1N4151	Small signal	Diode	DO35	8	40	5
1N4154	Small signal	Diode	DO35	8	40	5
1N4448	Small signal	Diode	DO35	8	40	5
1N4728A...	Zener	Diode	DO35	8	40	5
1N5059	Rectifier	Diode	SOD57	8	40	5
1N5060	Rectifier	Diode	SOD57	8	40	5
1N5061	Rectifier	Diode	SOD57	8	40	5
1N5062	Rectifier	Diode	SOD57	8	40	5
1N5221B...	Zener	Diode	DO35	8	40	5
1N5417	Rectifier	Diode	SOD64	8	40	5
1N5418	Rectifier	Diode	SOD64	8	40	5
1N5624	Rectifier	Diode	SOD64	8	40	5
1N5625	Rectifier	Diode	SOD64	8	40	5
1N5626	Rectifier	Diode	SOD64	8	40	5
1N5627	Rectifier	Diode	SOD64	8	40	5
29C21	X21 controller	SCMOS	PQFP	5	315	15
29C3xx	Transceiver	BICMOS	PDIL, PLCC	5	132	8
29C461	Network IC-Van controller	SCMOS	PSOP	5	130	7
29C80A	Communication IC	SCMOS	PLCC	5	624	30
29C80A	Video/image processor	SCMOS	PLCC	5	624	30
29C80E	Video/image processor	SCMOS	MFP	5	624	30
29C84A	Video IC	SCMOSA	PLCC	5	4912	160
29C84A	Video decoder	SCMOSA	PLCC	5	4912	160
29C921	Network IC	SCMOS	PQFP	5	315	15
29C93A	Terminal adapter	SCMOS	PQFP	5	793	39
29C94	Network IC	SCMOS	PLCC	5	2027	99
29C94	Network IC	SCMOS	PLCC	5	2027	99
29C95	Network IC	SCMOS	PLCC	5	2027	99
29C96	Network IC	SCMOS	PLCC	5	2384	116
29C96	Network IC	SCMOS	PLCC	5	2384	116
29C98	Network IC	SCMOS	PQFP	5	1512	74
2N3819	N JFET	Unipolar	TO92	5	7	7
2N3958	N JFET	Unipolar	TO71	5	7	7
2N4117	N JFET	Unipolar	TO18	5	7	7
2N4117A	N JFET	Unipolar	TO18	5	7	7
2N4118	N JFET	Unipolar	TO18	5	7	7
2N4118A	N JFET	Unipolar	TO18	5	7	7
2N4119	N JFET	Unipolar	TO18	5	7	7
2N4119A	N JFET	Unipolar	TO18	5	7	7
2N4338	N JFET	Unipolar	TO18	5	7	7
2N4339	N JFET	Unipolar	TO18	5	7	7
2N4340	N JFET	Unipolar	TO18	5	7	7
2N4341	N JFET	Unipolar	TO18	5	7	7
2N4391	N JFET	Unipolar	TO18	5	7	7
2N4392	N JFET	Unipolar	TO18	5	7	7
2N4393	N JFET	Unipolar	TO18	5	7	7
2N4416	N JFET	Unipolar	TO18	5	7	7
2N4416A	N JFET	Unipolar	TO18	5	7	7
2N4856	N JFET	Unipolar	TO18	5	7	7
2N4856A	N JFET	Unipolar	TO18	5	7	7
2N4857	N JFET	Unipolar	TO18	5	7	7
2N4857A	N JFET	Unipolar	TO18	5	7	7
2N4858	N JFET	Unipolar	TO18	5	7	7
2N4858A	N JFET	Unipolar	TO18	5	7	7
2N4859	N JFET	Unipolar	TO18	5	7	7
2N4860	N JFET	Unipolar	TO18	5	7	7
2N4861	N JFET	Unipolar	TO18	5	7	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
2N4861JAN/TXTXV	N JFET	Unipolar	TO18	5	7	7
2N5114	P JFET	Unipolar	TO18	5	17	4
2N5115	P JFET	Unipolar	TO18	5	17	4
2N5116	P JFET	Unipolar	TO18	5	17	4
2N5196	Dual N JFET	Unipolar	TO71	5	58	10
2N5197	Dual N JFET	Unipolar	TO71	5	58	10
2N5198	Dual N JFET	Unipolar	TO71	5	58	10
2N5199	Dual N JFET	Unipolar	TO71	5	58	10
2N5432	N JFET	Unipolar	TO18	5	7	7
2N5433	N JFET	Unipolar	TO18	5	7	7
2N5434	N JFET	Unipolar	TO18	5	7	7
2N5460	P JFET	Unipolar	TO92	5	17	4
2N5461	P JFET	Unipolar	TO92	5	17	4
2N5462	P JFET	Unipolar	TO92	5	17	4
2N5484	N JFET	Unipolar	TO92	5	7	7
2N5485	N JFET	Unipolar	TO92	5	7	7
2N5486	N JFET	Unipolar	TO92	5	7	7
2N5545	N JFET	Unipolar	TO71	5	7	7
2N5546	N JFET	Unipolar	TO71	5	7	7
2N5547	N JFET	Unipolar	TO71	5	7	7
2N5564	N JFET	Unipolar	TO71	5	7	7
2N5565	N JFET	Unipolar	TO71	5	7	7
2N5566	N JFET	Unipolar	TO71	5	7	7
2N5911	N JFET	Unipolar	TO78	5	7	7
2N5912	N JFET	Unipolar	TO78	5	7	7
2N6659	N DMOS	N LP B	TO39	4	3	7
2N6660	N DMOS	N LP B	TO39	4	3	7
2N6661	N DMOS	N LP B	TO39	4	3	7
2N6788	N DMOS	N LP B	TO39	4	3	7
2N6790	N DMOS	N LP B	TO39	4	3	7
2N6796	N DMOS	N LP B	TO39	4	3	7
2N6798	N DMOS	N LP B	TO39	4	3	7
2N6800	N DMOS	N LP B	TO39	4	3	7
2N6849	P DMOS	P B	TO39	4	35	6
2N6851	P DMOS	P B	TO39	4	35	6
2N7000	N DMOS	N LP B	TO92	4	3	7
2N7002	N DMOS	N LP B	SOT23	4	3	7
2N7013	N power MOS	N 2.5	TO250	4	2	2
2N7072	N DMOS	N LP B	TO254	4	3	7
2N7075	N DMOS	N LP B	CHIP	4	3	7
2N7076	N DMOS	N LP B	TO254	4	3	7
2N7078	N DMOS	N LP B	TO254	4	3	7
2N7079	P DMOS	P B	TO254	4	35	6
2N7085	N power MOS	N 1.6	TO257	4	1	2
2N7091	P DMOS	P B	TO254	4	35	6
2N7092	P DMOS	P B	TO254	4	35	6
3C91C	Optoisolator	Coupler	TH	55	50	21
3C92C	Optoisolator	Coupler	TH	55	50	21
3N163	P MOS	P MOS	TO72	4	24	4
3N164	P MOS	P MOS	TO72	4	24	4
4N25	Optoisolator	Coupler	TH	55	50	21
4N25(G)V	Optoisolator	Coupler	TH	55	50	21
4N26	Optoisolator	Coupler	TH	55	50	21
4N27	Optoisolator	Coupler	TH	55	50	21
4N28	Optoisolator	Coupler	TH	55	50	21
4N32	Optoisolator	Coupler	TH	55	50	21
4N33	Optoisolator	Coupler	TH	55	50	21
4N35	Optoisolator	Coupler	TH	55	50	21
4N35(G)V	Optoisolator	Coupler	TH	55	50	21
4N36	Optoisolator	Coupler	TH	55	50	21
4N37	Optoisolator	Coupler	TH	55	50	21
4N38A	Optoisolator	Coupler	TH	55	50	21
65162	2 K × 8 SRAM	SAJI6	PDIP, CDIP, LCC	10	701	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
65608	128 K × 8 ultimate SRAM	SCMOS2	PDIP, PSOP, SDIP, LCC, MFP	10	3696	42
65656A	32 K × 8 SRAM	SCMOS	PSOP, CDIP, SDIP, CQFP	10	1488	73
65656E	32 K × 8 SRAM-RT	SCMOS	PDIP, PSOP, CDIP, LCC	10	1488	73
65664A	8 K × 8 SRAM	SCMOS	PDIP, PSOP, CDIP, LCC	10	543	26
65664E	8 K × 8 SRAM-RT	SCMOS	PDIP, PSOP, CDIP, LCC	10	543	26
65687A	64 K × 1 SRAM	SCMOS	PDIP, PSOP, CDIP, LCC	10	543	26
65687E	64 K × 1 SRAM-RT	SCMOS	PDIP, PSOP, CDIP, LCC	10	543	26
65697A	256 K × 1 SRAM	SCMOS	PSOP, SDIP	10	1488	73
65697E	256 K × 1 SRAM-RT	SCMOS	PSOP, SDIP	10	1488	73
65728B	2 K × 8 SRAM	RAM2	SDIP, CQFP	10	190	7
65756	32 K × 8 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	720	25
65764	8 K × 8 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	285	10
65767B	16 K × 1 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	190	7
65768B	4 K × 4 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	190	7
65787	64 K × 1 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	285	10
65788	16 K × 4 SRAM	RAM2	PSOP, CDIP	10	285	10
65789	16 K × 4 SRAM	RAM2	PDIP, PSOP, CDIP	10	285	10
65790	16 K × 4 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	285	10
65797	256 K × 1 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	720	25
65798	64 K × 4 SRAM	RAM2	PDIP, PSOP, CDIP, LCC	10	720	25
65799	2 K × 8 SRAM	RAM2	PDIP, PSOP, CDIP	10	720	25
67005	8 K × 8 dual-port RAM	SCMOS	PLCC, LCC, CLCC, PGA	10	1252	61
67024	4 K × 16 dual-port RAM	SCMOS	PLCC, LCC, MFP, PGA	10	1213	59
67025	8 K × 16 dual-port RAM	SCMOS2	PLCC, LCC, MFP, PGA	10	1860	21
67025E	8 K × 16 dual-port RAM	SCMOS2	PLCC, LCC, MFP, PGA	10	1860	21
67130	1 K × 8 dual-port RAM	SCMOS	PDIP, PLCC, LCC	10	371	18
67132	2 K × 8 dual-port RAM	SCMOS	PDIP, PLCC, LCC	10	509	25
67140	1 K × 8 dual-port RAM	SCMOS	PDIP, PLCC, LCC	10	371	18
67142	2 K × 8 dual-port RAM	SCMOS	PDIP, PLCC, LCC	10	371	18
67201	512 × 9 FIFO	SCMOS	PDIP, PSOP, PLCC, CDIP, LCC	10	301	15
67201E	0.5 K × 9 FIFO	SCMOS	PDIP, PSOP, PLCC, CDIP, LCC	10	301	15
67202	1 K × 9 FIFO	SCMOS	PDIP, PSOP, PLCC, CDIP, LCC	10	301	15
67202E	1 K × 9 FIFO-RT	SCMOS	PDIP, PSOP, PLCC, CDIP, LCC	10	301	15
67205	8 K × 9 FIFO	SCMOS	PDIP, PSOP, PLCC, CDIP, LCC	10	926	45
67205E	8 K × 9 FIFO-RT	SCMOS	PDIP, PSOP, PLCC, CDIP, LCC	10	926	45
67206	16 K × 9 FIFO	SCMOS2	PDIP, PSOP, PLCC, CDIP, LCC	10	1966	22
80C31	8-bit microcontroller	SAJI6	PDIP, PLCC, PQFP	20	366	18
80C32	8-bit microcontroller	SAJI6	PDIP, PLCC, PQFP	20	376	18
80C51	8-bit microcontroller	SCMOS	PDIP, PLCC, PQFP	20	366	18
80C52	8-bit microcontroller	SAJI6	PDIP, PLCC, PQFP	20	425	21
83C154	8-bit microcontroller	SCMOS	PDIP, PLCC, PQFP	20	493	24
83C154	8-bit microcontroller	SAJI6	PDIP, PLCC, PQFP	20	964	10
83C154D	8-bit microcontroller	SCMOS	PDIP, PLCC, PQFP	20	576	28
BA1283	Band switch	Diode	MELF	8	40	5
BA282	Band switch	Diode	DO35	8	40	5
BA283	Band switch	Diode	DO35	8	40	5
BA479G	PIN	Diode	DO35	8	40	5
BA479S	PIN	Diode	DO35	8	40	5
BA604	Small signal	Diode	SOD80	8	40	5
BA679	PIN	Diode	SOD80	8	40	5
BA679S	PIN	Diode	SOD80	8	40	5
BA682	Band switch	Diode	SOD80	8	40	5
BA683	Band switch	Diode	SOD80	8	40	5

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
BA779	PIN	Diode	SOT23	8	40	5
BA779-2	PIN	Diode	SOT23	8	40	5
BA779S	PIN	Diode	SOT23	8	40	5
BA979	PIN	Diode	MELF	8	40	5
BA979S	PIN	Diode	MELF	8	40	5
BA982	Band switch	Diode	MELF	8	40	5
BA983	Band switch	Diode	MELF	8	40	5
BAQ133	Small signal	Diode	MELF	8	40	5
BAQ134	Small signal	Diode	MELF	8	40	5
BAQ135	Small signal	Diode	MELF	8	40	5
BAQ33	Small signal	Diode	SOD80	8	40	5
BAQ333	Small signal	Diode	MELF	8	40	5
BAQ334	Small signal	Diode	MELF	8	40	5
BAQ335	Small signal	Diode	MELF	8	40	5
BAQ34	Small signal	Diode	SOD80	8	40	5
BAQ35	Small signal	Diode	SOD80	8	40	5
BAS33	Small signal	Diode	DO35	8	40	5
BAS34	Small signal	Diode	DO35	8	40	5
BAV100	Small signal	Diode	SOD80	8	40	5
BAV101	Small signal	Diode	SOD80	8	40	5
BAV102	Small signal	Diode	SOD80	8	40	5
BAV103	Small signal	Diode	SOD80	8	40	5
BAV17	Small signal	Diode	DO35	8	40	5
BAV18	Small signal	Diode	DO35	8	40	5
BAV19	Small signal	Diode	DO35	8	40	5
BAV20	Small signal	Diode	DO35	8	40	5
BAV200	Small signal	Diode	MELF	8	40	5
BAV201	Small signal	Diode	MELF	8	40	5
BAV202	Small signal	Diode	MELF	8	40	5
BAV203	Small signal	Diode	MELF	8	40	5
BAV21	Small signal	Diode	DO35	8	40	5
BAV300	Small signal	Diode	MELF	8	40	5
BAV301	Small signal	Diode	MELF	8	40	5
BAV302	Small signal	Diode	MELF	8	40	5
BAV303	Small signal	Diode	MELF	8	40	5
BAV70	Dual small signal	Diode	SOT23	8	40	5
BAV99	Dual small signal	Diode	SOT23	8	40	5
BAW27	Small signal	Diode	DO35	8	40	5
BAW56	Dual small signal	Diode	SOT23	8	40	5
BAW75	Small signal	Diode	DO35	8	40	5
BAW76	Small signal	Diode	DO35	8	40	5
BAY135	Small signal	Diode	DO35	8	40	5
BAY80	Small signal	Diode	DO35	8	40	5
BB804	Varactor	Diode	SOT23	8	40	5
BB814	Varactor	Diode	SOT23	8	40	5
BB824	Varactor	Diode	SOT23	8	40	5
BF543	N-dual gate	MOS	SOT23	11	50	9
BF569	PNP small signal	Bipolar	SOT23	11	50	9
BF579	PNP small signal	Bipolar	SOT23	11	50	9
BF961	N-dual gate	MOS	TO50	11	50	9
BF964S	N-dual gate	MOS	TO50	11	50	9
BF966S	N-dual gate	MOS	TO50	11	50	9
BF970	PNP small signal	Bipolar	TO50	11	50	9
BF979	PNP small signal	Bipolar	TO50	11	50	9
BF988	N-dual gate	MOS	TO50	11	50	9
BF994S	N-dual gate	MOS	TO50	11	50	9
BF995	N-dual gate	MOS	TO50	11	50	9
BF996S	N-dual gate	MOS	TO50	11	50	9
BF998	N-dual gate	MOS	TO50	11	50	9
BFP181T	NPN small signal	Bipolar	SOT143	11	50	9
BFP182T	NPN small signal	Bipolar	SOT143	11	50	9
BFP183T	NPN small signal	Bipolar	SOT143	11	50	9
BFP280T	NPN small signal	Bipolar	SOT143	11	50	9

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
BFP67	NPN small signal	Bipolar	SOT143	11	50	9
BFP81	NPN small signal	Bipolar	SOT143	11	50	9
BFP92A	NPN small signal	Bipolar	SOT143	11	50	9
BFP93A	NPN small signal	Bipolar	SOT143	11	50	9
BFQ65	NPN small signal	Bipolar	TO50	11	50	9
BFQ67	NPN small signal	Bipolar	SOT23	11	50	9
BFQ81	NPN small signal	Bipolar	SOT23	11	50	9
BFR181T	NPN small signal	Bipolar	SOT23	11	50	9
BFR182T	NPN small signal	Bipolar	SOT23	11	50	9
BFR183T	NPN small signal	Bipolar	SOT23	11	50	9
BFR194T	NPN small signal	Bipolar	SOT23	11	50	9
BFR280T	NPN small signal	Bipolar	SOT23	11	50	9
BFR90	NPN small signal	Bipolar	TO50	11	50	9
BFR90A	NPN small signal	Bipolar	TO50	11	50	9
BFR91	NPN small signal	Bipolar	TO50	11	50	9
BFR91A	NPN small signal	Bipolar	TO50	11	50	9
BFR92	NPN small signal	Bipolar	SOT23	11	50	9
BFR92A	NPN small signal	Bipolar	SOT23	11	50	9
BFR93	NPN small signal	Bipolar	SOT23	11	50	9
BFR93A	NPN small signal	Bipolar	SOT23	11	50	9
BFR96	NPN small signal	Bipolar	TO50	11	50	9
BFR96TS	NPN small signal	Bipolar	TO50	11	50	9
BFS17	NPN small signal	Bipolar	SOT23	11	50	9
BFS17A	NPN small signal	Bipolar	SOT23	11	50	9
BFW92	NPN small signal	Bipolar	TO50	11	50	9
BFW92A	NPN small signal	Bipolar	TO51	11	50	9
BP104	PIN photo	Detector	TH	113	729	428
BPV10	PIN photo	Detector	TH	113	729	428
BPV10NF	PIN photo	Detector	TH	113	729	428
BPV11	Photo transistor	Detector	TH	113	729	428
BPV11F	Photo transistor	Detector	TH	113	729	428
BPV20F	PIN photo	Detector	TH	113	729	428
BPV21F	PIN photo	Detector	TH	113	729	428
BPV22F	PIN photo	Detector	TH	113	729	428
BPV22NF	PIN photo	Detector	TH	113	729	428
BPV23F	PIN photo	Detector	TH	113	729	428
BPV23NF	PIN photo	Detector	TH	113	729	428
BPW16N	IR detector	Detector	TH	113	729	428
BPW17N	IR detector	Detector	TH	113	729	428
BPW20R	IR detector	Detector	TH	113	729	428
BPW21R	IR detector	Detector	TH	113	729	428
BPW24R	PIN photo	Detector	TH	113	729	428
BPW34	PIN photo	Detector	TH	113	729	428
BPW41N	PIN photo	Detector	TH	113	729	428
BPW43	PIN photo	Detector	TH	113	729	428
BPW46	PIN photo	Detector	TH	113	729	428
BPW76A	Photo transistor	Detector	TH	113	729	428
BPW76B	Photo transistor	Detector	TH	113	729	428
BPW77NA	Photo transistor	Detector	TH	113	729	428
BPW77NB	Photo transistor	Detector	TH	113	729	428
BPW78A	Photo transistor	Detector	TH	113	729	428
BPW78B	Photo transistor	Detector	TH	113	729	428
BPW82	PIN photo	Detector	TH	113	729	428
BPW83	PIN photo	Detector	TH	113	729	428
BPW85A	Photo transistor	Detector	TH	113	729	428
BPW85B	Photo transistor	Detector	TH	113	729	428
BPW85C	Photo transistor	Detector	TH	113	729	428
BPW96A	Photo transistor	Detector	TH	113	729	428
BPW96B	Photo transistor	Detector	TH	113	729	428
BPW96C	Photo transistor	Detector	TH	113	729	428
BPW97	PIN photo	Detector	TH	113	729	428
BPX38	Photo transistor	Detector	TH	113	729	428
BPX38-4	Photo transistor	Detector	TH	113	729	428

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
BPX38-5	Photo transistor	Detector	TH	113	729	428
BPX38-6	Photo transistor	Detector	TH	113	729	428
BPX43	Photo transistor	Detector	TH	113	729	428
BPX43-4	Photo transistor	Detector	TH	113	729	428
BPX43-5	Photo transistor	Detector	TH	113	729	428
BPX43-6	Photo transistor	Detector	TH	113	729	428
BPX99R	Photo darlington	Detector	TH	113	729	428
BS107	N DMOS	N LP B	TO92	4	3	7
BS170	N DMOS	N LP B	TO92	4	3	7
BS250	P DMOS	P LP B	TO92	4	15	4
BSS129	N DMOS	N LP B	TO92	4	3	7
BSS92	P DMOS	P LP B	TO92	4	15	4
BUD600	NPN power	Bipolar	T0252	11	50	9
BUD620	NPN power	Bipolar	T0252	11	50	9
BUD630	NPN power	Bipolar	T0252	11	50	9
BUD636A	NPN power	Bipolar	T0252	11	50	9
BUD86	NPN power	Bipolar	T0252	11	50	9
BUD87	NPN power	Bipolar	T0252	11	50	9
BUF620	NPN power	Bipolar	TO220	11	50	9
BUF630	NPN power	Bipolar	TO220	11	50	9
BUF636A	NPN power	Bipolar	TO220	11	50	9
BUF640	NPN power	Bipolar	TO220	11	50	9
BUF640A	NPN power	Bipolar	TO220	11	50	9
BUF642	NPN power	Bipolar	TO220	11	50	9
BUF644	NPN power	Bipolar	TO220	11	50	9
BUF646	NPN power	Bipolar	TO220	11	50	9
BUF646A	NPN power	Bipolar	TO220	11	50	9
BUF650	NPN power	Bipolar	TO220	11	50	9
BUF654	NPN power	Bipolar	TO220	11	50	9
BUZ171	P power MOS	P 1.6	TO220	4	6	1
BUZ71	N power MOS	N 2.5	TO220	4	2	2
BUZ71A	N power MOS	N 2.5	TO220	4	2	2
BY 269	Rectifier	Diode	SOD57	8	40	5
BY203/12S	Rectifier	Diode	SOD57	8	40	5
BY203/16S	Rectifier	Diode	SOD57	8	40	5
BY203/20S	Rectifier	Diode	SOD57	8	40	5
BY228	Rectifier	Diode	SOD64	8	40	5
BY228/13	Rectifier	Diode	SOD64	8	40	5
BY228/15	Rectifier	Diode	SOD57	8	40	5
BY268	Rectifier	Diode	SOD57	8	40	5
BY448	Rectifier	Diode	SOD57	8	40	5
BY458	Rectifier	Diode	SOD57	8	40	5
BY527	Rectifier	Diode	SOD57	8	40	5
BYG10D...	Rectifier	Diode	DO214	8	40	5
BYG20D...	Rectifier	Diode	DO214	8	40	5
BYG21K...	Rectifier	Diode	DO214	8	40	5
BYG22A...	Rectifier	Diode	DO214	8	40	5
BYM36...	Rectifier	Diode	SOD64	8	40	5
BYS10-25	Rectifier	Diode	DO214	8	40	5
BYS10-35	Rectifier	Diode	DO214	8	40	5
BYS10-45	Rectifier	Diode	DO214	8	40	5
BYS11-90	Rectifier	Diode	DO214	8	40	5
BYS12-90	Rectifier	Diode	DO214	8	40	5
BYT08P/1000A	Rectifier	Diode	DO220	8	40	5
BYT08P/600A	Rectifier	Diode	DO220	8	40	5
BYT08P/800A	Rectifier	Diode	DO220	8	40	5
BYT106/1300	Rectifier	Diode	DO220	8	40	5
BYT108/200	Rectifier	Diode	DO220	8	40	5
BYT108/400	Rectifier	Diode	DO220	8	40	5
BYT115/200	Rectifier	Diode	DO220	8	40	5
BYT115/400	Rectifier	Diode	DO220	8	40	5
BYT12P/1000A	Rectifier	Diode	DO220	8	40	5
BYT12P/600A	Rectifier	Diode	DO220	8	40	5

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
BYT12P/800A	Rectifier	Diode	DO220	8	40	5
BYT41A...	Rectifier	Diode	DOT30B	8	40	5
BYT42A...	Rectifier	Diode	DOT30B	8	40	5
BYT43A...	Rectifier	Diode	DOT30B	8	40	5
BYT44A...	Rectifier	Diode	DOT30B	8	40	5
BYT51A...	Rectifier	Diode	SOD57	8	40	5
BYT52A...	Rectifier	Diode	SOD57	8	40	5
BYT53A...	Rectifier	Diode	SOD57	8	40	5
BYT54A...	Rectifier	Diode	SOD57	8	40	5
BYT56A...	Rectifier	Diode	SOD64	8	40	5
BYT62	Rectifier	Diode	SOD64	8	40	5
BYT77	Rectifier	Diode	SOD64	8	40	5
BYT78	Rectifier	Diode	SOD64	8	40	5
BYT85/1000	Rectifier	Diode	DO220	8	40	5
BYT85/600	Rectifier	Diode	DO220	8	40	5
BYT85/800	Rectifier	Diode	DO220	8	40	5
BYT86/1000	Rectifier	Diode	DO220	8	40	5
BYT86/1300	Rectifier	Diode	DO220	8	40	5
BYT86/600	Rectifier	Diode	DO220	8	40	5
BYT86/800	Rectifier	Diode	DO220	8	40	5
BYT87/1000	Rectifier	Diode	DO220	8	40	5
BYT87/600	Rectifier	Diode	DO220	8	40	5
BYT87/800	Rectifier	Diode	DO220	8	40	5
BYV12	Rectifier	Diode	SOD57	8	40	5
BYV13	Rectifier	Diode	SOD57	8	40	5
BYV14	Rectifier	Diode	SOD57	8	40	5
BYV15	Rectifier	Diode	SOD57	8	40	5
BYV16	Rectifier	Diode	SOD57	8	40	5
BYV26A...	Rectifier	Diode	SOD57	8	40	5
BYV27/A...	Rectifier	Diode	SOD57	8	40	5
BYV28/A...	Rectifier	Diode	SOD57	8	40	5
BYV37	Rectifier	Diode	SOD57	8	40	5
BYV38	Rectifier	Diode	SOD57	8	40	5
BYW172...	Rectifier	Diode	SOD64	8	40	5
BYW178	Rectifier	Diode	SOD64	8	40	5
BYW32	Rectifier	Diode	SOD57	8	40	5
BYW33	Rectifier	Diode	SOD57	8	40	5
BYW34	Rectifier	Diode	SOD57	8	40	5
BYW35	Rectifier	Diode	SOD57	8	40	5
BYW36	Rectifier	Diode	SOD57	8	40	5
BYW52	Rectifier	Diode	SOD57	8	40	5
BYW53	Rectifier	Diode	SOD57	8	40	5
BYW54	Rectifier	Diode	SOD57	8	40	5
BYW55	Rectifier	Diode	SOD57	8	40	5
BYW56	Rectifier	Diode	SOD57	8	40	5
BYW72	Rectifier	Diode	SOD64	8	40	5
BYW73	Rectifier	Diode	SOD64	8	40	5
BYW74	Rectifier	Diode	SOD64	8	40	5
BYW75	Rectifier	Diode	SOD64	8	40	5
BYW76	Rectifier	Diode	SOD64	8	40	5
BYW82	Rectifier	Diode	SOD64	8	40	5
BYW83	Rectifier	Diode	SOD64	8	40	5
BYW84	Rectifier	Diode	SOD64	8	40	5
BYW85	Rectifier	Diode	SOD64	8	40	5
BYW86	Rectifier	Diode	SOD64	8	40	5
BYX82	Rectifier	Diode	SOD57	8	40	5
BYX83	Rectifier	Diode	SOD57	8	40	5
BYX84	Rectifier	Diode	SOD57	8	40	5
BYX85	Rectifier	Diode	SOD57	8	40	5
BYX86	Rectifier	Diode	SOD57	8	40	5
BZG03/C...	Zener	Diode	DO214	8	40	5
BZG04/C...	Zener	Diode	DO214	8	40	5
BZG05/C...	Zener	Diode	DO214	8	40	5

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
BZM55...	Zener	Diode	MELF	8	40	5
BZT03/C...	Zener	Diode	SOD57	8	40	5
BZT03/D...	Zener	Diode	SOD57	8	40	5
BZT55...	Zener	Diode	MELF	8	40	5
BZW03/C...	Zener	Diode	SOD64	8	40	5
BZW03/D...	Zener	Diode	SOD64	8	40	5
BZX55...	Zener	Diode	DO35	8	40	5
BZX85/C...	Zener	Diode	DO41	8	40	5
CNY17(G)-1	Optoisolator	Coupler	TH	55	50	21
CNY17(G)-2	Optoisolator	Coupler	TH	55	50	21
CNY17(G)3	Optoisolator	Coupler	TH	55	50	21
CNY18III	Optoisolator	Coupler	TH	55	50	21
CNY18IV	Optoisolator	Coupler	TH	55	50	21
CNY18V	Optoisolator	Coupler	TH	55	50	21
CNY21Exi	Optoisolator	Coupler	TH	55	50	21
CNY21N	Optoisolator	Coupler	TH	55	50	21
CNY64	Optoisolator	Coupler	TH	55	50	21
CNY64A	Optoisolator	Coupler	TH	55	50	21
CNY64B	Optoisolator	Coupler	TH	55	50	21
CNY65	Optoisolator	Coupler	TH	55	50	21
CNY65A	Optoisolator	Coupler	TH	55	50	21
CNY65B	Optoisolator	Coupler	TH	55	50	21
CNY65Exi	Optoisolator	Coupler	TH	55	50	21
CNY66	Optoisolator	Coupler	TH	55	50	21
CNY70	Sensor	Detector	TH	113	729	428
CNY74-2	Optoisolator	Coupler	TH	55	50	21
CNY74-4	Optoisolator	Coupler	TH	55	50	21
CNY75(G)A	Optoisolator	Coupler	TH	55	50	21
CNY75(G)B	Optoisolator	Coupler	TH	55	50	21
CNY75(G)C	Optoisolator	Coupler	TH	55	50	21
CQX19	IR emitter	Emitter	TH	67	4100	960
CQX48A	IR emitter	Emitter	TH	67	4100	960
CQX48B	IR emitter	Emitter	TH	67	4100	960
CQY36N	IR emitter	Emitter	TH	67	4100	960
CQY37N	IR emitter	Emitter	TH	67	4100	960
CQY80N(G)	Optoisolator	Coupler	TH	55	50	21
CR160	Current regulator	Unipolar	TO72	5	7	7
CR180	Current regulator	Unipolar	TO72	5	7	7
CR200	Current regulator	Unipolar	TO72	5	7	7
CR220	Current regulator	Unipolar	TO72	5	7	7
CR240	Current regulator	Unipolar	TO72	5	7	7
CR270	Current regulator	Unipolar	TO72	5	7	7
CR300	Current regulator	Unipolar	TO72	5	7	7
CR330	Current regulator	Unipolar	TO72	5	7	7
CR360	Current regulator	Unipolar	TO72	5	7	7
CR390	Current regulator	Unipolar	TO72	5	7	7
CR430	Current regulator	Unipolar	TO72	5	7	7
CR470	Current regulator	Unipolar	TO72	5	7	7
D469A	Current driver	LVSGCMOS	PDIP, SDIP	9	61	14
DG180	SPST switch	BIPMOS	TO100, SDIP, CQFP	9	45	20
DG181	SPST switch	BIPMOS	TO100, SDIP, CQFP	9	45	20
DG182	SPST switch	BIPMOS	TO100, SDIP, CQFP	9	45	20
DG183	DPST switch	BIPMOS	SDIP	9	45	20
DG184	DPST switch	BIPMOS	SDIP, PQFP	9	45	20
DG185	DPST switch	BIPMOS	SDIP, PQFP	9	45	20
DG186	SPDT switch	BIPMOS	TO100, SDIP	9	45	20
DG187	SPDT switch	BIPMOS	TO100, SDIP, CQFP	9	45	20
DG188	SPDT switch	BIPMOS	TO100, SDIP, CQFP	9	45	20
DG189	SPDT switch	BIPMOS	SDIP	9	45	20
DG190	SPDT switch	BIPMOS	SDIP, PQFP	9	45	20
DG191	SPDT switch	BIPMOS	SDIP, PQFP	9	45	20
DG200A	SPST switch	HVMGCMOS	TO100, PDIP, CQFP	9	7	3
DG201A	SPST switch	HVMGCMOS	PDIP, CDIP, PSOP, CLCC	9	7	3

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
DG201B	SPST switch	HVSGIICMOS	PDIP, CDIP, PSOP	9	18	8
DG201HS	SPST switch	HVSGIICMOS	PDIP, CDIP, PSOP, CLCC	9	18	8
DG202	SPST switch	HVMGCMOS	PDIP, CDIP	9	7	3
DG202B	SPST switch	HVSGIICMOS	PDIP, CDIP, PSOP	9	18	8
DG211B	SPST switch	HVSGIICMOS	PDIP, PSOP	9	18	8
DG212	SPST switch	HVMGCMOS	PDIP, PSOP	9	7	3
DG212B	SPST switch	HVMGCMOS	PDIP, PSOP	9	7	3
DG221	SPST switch	HVMGCMOS	PDIP, CDIP, PSOP	9	7	3
DG243	SPDT switch	HVMGCMOS	PDIP, CLCC	9	7	3
DG271	SPST switch	HVMGCMOS	PDIP, CDIP, PSOP, CLCC	9	7	3
DG300A	SPST switch	HVMGCMOS	TO100, PDIP, CDIP, SDIP	9	7	3
DG301A	SPST switch	HVMGCMOS	TO100, PDIP, CDIP, CLCC	9	7	3
DG302A	SPST switch	HVMGCMOS	PDIP, CDIP, SDIP	9	7	3
DG304A	SPST switch	HVMGCMOS	TO100, PDIP, CDIP, SDIP	9	7	3
DG305A	SPST switch	HVMGCMOS	TO100, CDIP, SDIP	9	7	3
DG306A	SPST switch	HVMGCMOS	PDIP, CDIP, SDIP	9	7	3
DG307A	SPST switch	HVMGCMOS	PDIP, CDIP, SDIP, CLCC	9	7	3
DG308A	SPST switch	HVMGCMOS	PDIP, CDIP, PSOP	9	7	3
DG308B	SPST switch	HVSGIICMOS	PDIP, CDIP, PSOP	9	18	8
DG309	SPST switch	HVMGCMOS	PDIP, CDIP, PSOP	9	7	3
DG309B	SPST switch	HVSGIICMOS	PDIP, CDIP, PSOP	9	18	8
DG381A	SPST switch	HVMGCMOS	PDIP	9	7	3
DG384A	SPST switch	HVMGCMOS	PDIP, CDIP	9	7	3
DG387A	SPST switch	HVMGCMOS	TO100, PDIP, CDIP	9	7	3
DG390A	SPST switch	HVMGCMOS	PDIP, CDIP	9	7	3
DG401	SPST switch	HVSGCMOS	PDIP, CDIP, CLCC	9	6	5
DG403	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	6	5
DG405	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	6	5
DG406	Multiplexer	HVSGCMOS	PDIP, CDIP, CLCC	9	6	5
DG407	Multiplexer	HVSGCMOS	PDIP, CDIP, CLCC	9	6	5
DG408	Multiplexer	HVSGIICMOS	PDIP, CDIP, PSOP	9	18	8
DG409	Multiplexer	HVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	6	5
DG411	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	6	5
DG412	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	6	5
DG413	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	6	5
DG417	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP	9	6	5
DG418	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP	9	6	5
DG419	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP	9	6	5
DG421	SPST switch	HVSGCMOS	PDIP, CDIP	9	6	5
DG423	SPST switch	HVSGCMOS	PDIP, CDIP, CLCC	9	6	5
DG425	SPST switch	HVSGCMOS	PDIP	9	6	5
DG428	Multiplexer	HVSGIICMOS	PDIP, CDIP, CLCC	9	18	8
DG429	Multiplexer	HVSGIICMOS	PDIP, CDIP, CLCC	9	18	8
DG441	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP	9	6	5
DG442	SPST switch	HVSGCMOS	PDIP, CDIP, PSOP	9	6	5
DG444	SPST switch	HVSGCMOS	PDIP, PSOP	9	6	5
DG445	SPST switch	HVSGCMOS	PDIP, PSOP	9	6	5
DG458	Multiplexer	HVSGCMOS	PDIP, CDIP, CLCC	9	6	5
DG459	Multiplexer	HVSGCMOS	PDIP, CDIP, CLCC	9	6	5
DG485	Multiplexer	HVSGCMOS	PDIP, CLCC	9	6	5
DG5043	Analog switch	HVMGCMOS	PDIP	9	7	3
DG506A	Multiplexer	HVMGCMOS	PDIP, CDIP, CLCC	9	7	3
DG507A	Multiplexer	HVMGCMOS	PDIP, CDIP	9	7	3
DG508A	Multiplexer	HVMGCMOS	PDIP, CDIP, PSOP, CLCC	9	7	3
DG509A	Multiplexer	HVMGCMOS	PDIP, CDIP, PSOP	9	7	3
DG5143	Multiplexer	HVSGCMOS	PDIP, CDIP	9	6	5
DG528	Multiplexer	HVMGCMOS	PDIP, CDIP	9	7	3
DG529	Multiplexer	HVMGCMOS	PDIP, CDIP	9	7	3
DG534A	Multiplexer	LDMOS	PDIP, CLCC, SDIP	9	51	12
DG535	Multiplexer	LDMOS	PDIP, SDIP	9	51	12
DG536	Multiplexer	LDMOS	CDIP, CLCC	9	51	12
DG538A	Multiplexer	LDMOS	PDIP, CLCC, SDIP	9	51	12

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
DG540	Video switch	LDMOS	PDIP, CLCC, SDIP	9	51	12
DG541	Video switch	LDMOS	PDIP, CLCC, PSOP	9	51	12
DG542	Video switch	LDMOS	PDIP, SDIP, PSOP	9	51	12
DG601	Analog switch	LVSGCMOS	PDIP, CDIP, PSOP, CLCC	9	61	14
DG611	Analog switch	LDMOS	PDIP, CDIP, PSOP, CLCC	9	51	12
DG612	Analog switch	LDMOS	PDIP, CDIP, PSOP, CLCC	9	51	12
DG613	Analog switch	LDMOS	PDIP, CDIP, PSOP, CLCC	9	51	12
DG641	Video switch	LDMOS	PDIP, PSOP	9	51	12
DG642	Video switch	LDMOS	PDIP, PSOP	9	51	12
DG643	Video switch	LDMOS	PDIP, PSOP	9	51	12
DG884	Multiplexer	LDMOS	CDIP, CLCC	9	51	12
DG894	Multiplexer	LDMOS	PDIP, PSOP	9	51	12
DN1303	Dual N JFET	Unipolar	TO 71	5	58	10
DN1328	N JFET	Unipolar	TO 71	5	7	7
DN1397	N JFET	Unipolar	TO 71	5	7	7
DN1401	N JFET	Unipolar	TO 78	5	7	7
DN1422	Dual N JFET	Unipolar	TO 71	5	58	10
DN1534	Dual N JFET	Unipolar	TO 71	5	58	10
DN1624	N JFET	Unipolar	TO 71	5	7	7
DN1639	N JFET	Unipolar	TO 78	5	7	7
DN1675	Dual N JFET	Unipolar	TO 71	5	58	10
DN1684	Dual N JFET	Unipolar	TO 71	5	58	10
DN1725	N JFET	Unipolar	TO 78	5	7	7
DN1810	N JFET	Unipolar	TO 71	5	7	7
DN1838	Dual N JFET	Unipolar	TO 78	5	58	10
DN1901	N JFET	Unipolar	TO 71	5	7	7
DN2025	N JFET	Unipolar	TO 71	5	7	7
DN2094	N JFET	Unipolar	TO 71	5	7	7
DN2130	N JFET	Unipolar	TO 78	5	7	7
DN2182	N JFET	Unipolar	TO 78	5	7	7
DN2222	N JFET	Unipolar	TO 71	5	7	7
DN2235	N JFET	Unipolar	MFP	5	7	7
DN2249	N JFET	Unipolar	TO 71	5	7	7
DN2272	N JFET	Unipolar	TO 71	5	7	7
DN2278	N JFET	Unipolar	TO 71	5	7	7
DN324	Dual N JFET	Unipolar	TO 71	5	58	10
DN482	N JFET	Unipolar	TO 78	5	7	7
DN552	N JFET	Unipolar	TO 71	5	7	7
DN553	Dual N JFET	Unipolar	TO 71	5	58	10
DN904	N JFET	Unipolar	TO 71	5	7	7
DN907	Dual N JFET	Unipolar	TO 71	5	58	10
DPAD1	Dual N JFET	Unipolar	TO78	5	58	10
DPAD5	Dual N JFET	Unipolar	TO71	5	58	10
DPAD50	Dual N JFET	Unipolar	TO71	5	58	10
e1217D	Clock	CMOS	DICE	x	x	x
e1218D	Clock	CMOS	DICE	x	x	x
e1466D	Clock	CMOS	PDIP, DICE	x	x	x
e1467D	Clock	CMOS	DICE	x	x	x
e1469D	Clock	CMOS	DICE	x	x	x
e1480D	Clock	CMOS	DICE	x	x	x
e5130A	Motor driver	CMOS	DICE	x	x	x
e5310	Clock	CMOS	DICE	x	x	x
e5530	Identification	CMOS	PDIP, PSOP	x	x	x
e5550	Identification	CMOS	DICE	x	x	x
e5560	Identification	CMOS	Transponder	x	x	x
e6210	EEPROM	CMOS	PDIP, PSOP, DICE	x	x	x
e6220	EEPROM	CMOS	PDIP, PSOP, DICE	x	x	x
Ex-81/21580	Optoisolator	Coupler	TH	55	50	21
Ex-90.C.21060	Optoisolator	Coupler	TH	55	50	21
FN1234	N JFET	Unipolar	TO18	5	7	7
FN1705	N JFET	Unipolar	TO72	5	7	7
FN1905	N JFET	Unipolar	TO72	5	7	7
FN1962	N JFET	Unipolar	TO18	5	7	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
FN2538	N JFET	Unipolar	TO18	5	7	7
FN2645	N JFET	Unipolar	TO52	5	7	7
FN2761	N JFET	Unipolar	TO18	5	7	7
FN3156	N JFET	Unipolar	TO52	5	7	7
FN3419	N JFET	Unipolar	TO18	5	7	7
FN366101	N JFET	Unipolar	TO72	5	7	7
FN3695	N JFET	Unipolar	TO52	5	7	7
FN4062	N JFET	Unipolar	TO72	5	7	7
FN4569	N JFET	Unipolar	TO52	5	7	7
FN4570	N JFET	Unipolar	TO52	5	7	7
FN4610	N JFET	Unipolar	TO52	5	7	7
FN4721	N JFET	Unipolar	TO52	5	7	7
FN4763	N JFET	Unipolar	TO52	5	7	7
FN4773	N JFET	Unipolar	TO52	5	7	7
FN4857	N JFET	Unipolar	TO72	5	7	7
FN4864	N JFET	Unipolar	TO18	5	7	7
FN4868	N JFET	Unipolar	TO18	5	7	7
FN4920	N JFET	Unipolar	TO72	5	7	7
FN4932	N JFET	Unipolar	TO72	5	7	7
FN4937	N JFET	Unipolar	TO72	5	7	7
FN4979	N JFET	Unipolar	TO72	5	7	7
FN4985	N JFET	Unipolar	TO18	5	7	7
FN4988	N JFET	Unipolar	TO18	5	7	7
FN5033	N JFET	Unipolar	TO72	5	7	7
FN5067	N JFET	Unipolar	TO18	5	7	7
FN5137	N JFET	Unipolar	TO52	5	7	7
FN5281	N JFET	Unipolar	TO18	5	7	7
FN5286	N JFET	Unipolar	TO72	5	7	7
FN5339	N JFET	Unipolar	TO52	5	7	7
FN5341	N JFET	Unipolar	TO72	5	7	7
FN5346	N JFET	Unipolar	TO72	5	7	7
FN5400	N JFET	Unipolar	TO72	5	7	7
FN5406	N JFET	Unipolar	TO72	5	7	7
FN5410	N JFET	Unipolar	TO52	5	7	7
FN5496	N JFET	Unipolar	TO72	5	7	7
FN5498	N JFET	Unipolar	TO52	5	7	7
FN5508	N JFET	Unipolar	TO52	5	7	7
FN5512	N JFET	Unipolar	TO18	5	7	7
FN5514	P JFET	Unipolar	TO18	5	17	4
FN5519	N JFET	Unipolar	TO52	5	7	7
FN5520	N JFET	Unipolar	TO52	5	7	7
FN5541	N JFET	Unipolar	TO18	5	7	7
FN5546	N JFET	Unipolar	TO72	5	7	7
FN910	N JFET	Unipolar	TO72	5	7	7
IRF530	N power MOS	N 1.6	TO220	4	1	2
IRF9520	P power MOS	P 1.6	TO220	4	6	1
IRF9530	P power MOS	P B	TO220	4	35	6
IRFD020	N power MOS	N 2.5	TO250	4	2	2
IRFD110	N power MOS	N 1.6	TO250	4	1	2
IRFD120	N power MOS	N 1.6	TO250	4	1	2
IRFD123	N power MOS	N 2.5	TO250	4	2	2
IRFD9020	P power MOS	P 1.6	TO250	4	6	1
IRFD9120	P power MOS	P 1.6	TO250	4	6	1
IRFD9123	P power MOS	P 1.6	TO250	4	6	1
J105	N JFET	Unipolar	TO92	5	7	7
J106	N JFET	Unipolar	TO92	5	7	7
J107	N JFET	Unipolar	TO92	5	7	7
J108	N JFET	Unipolar	TO92	5	7	7
J109	N JFET	Unipolar	TO92	5	7	7
J110	N JFET	Unipolar	TO92	5	7	7
J111	N JFET	Unipolar	TO92	5	7	7
J112	N JFET	Unipolar	TO92	5	7	7
J113	N JFET	Unipolar	TO92	5	7	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
J174	P JFET	Unipolar	TO92	5	17	4
J175	P JFET	Unipolar	TO92	5	17	4
J176	P JFET	Unipolar	TO92	5	17	4
J177	P JFET	Unipolar	TO92	5	17	4
J201	N JFET	Unipolar	TO92	5	7	7
J202	N JFET	Unipolar	TO92	5	7	7
J204	N JFET	Unipolar	TO92	5	7	7
J206	N JFET	Unipolar	TO92	5	7	7
J210	N JFET	Unipolar	TO92	5	7	7
J211	N JFET	Unipolar	TO92	5	7	7
J212	N JFET	Unipolar	TO92	5	7	7
J2160	N JFET	Unipolar	TO92	5	7	7
J2196	N JFET	Unipolar	TO92	5	7	7
J2255	N JFET	Unipolar	TO92	5	7	7
J2318	N JFET	Unipolar	TO92	5	7	7
J2346	N JFET	Unipolar	TO92	5	7	7
J2348	N JFET	Unipolar	TO92	5	7	7
J2354	N JFET	Unipolar	TO92	5	7	7
J2360	N JFET	Unipolar	TO92	5	7	7
J2371	N JFET	Unipolar	TO92	5	7	7
J2378	N JFET	Unipolar	TO92	5	7	7
J2402	N JFET	Unipolar	TO92	5	7	7
J2472	N JFET	Unipolar	TO92	5	7	7
J2476	N JFET	Unipolar	TO92	5	7	7
J2512	N JFET	Unipolar	TO92	5	7	7
J2557	N JFET	Unipolar	TO92	5	7	7
J2607	N JFET	Unipolar	TO92	5	7	7
J2608	N JFET	Unipolar	TO92	5	7	7
J2655	N JFET	Unipolar	TO92	5	7	7
J2673	N JFET	Unipolar	TO92	5	7	7
J270	P JFET	Unipolar	TO92	5	17	4
J271	P JFET	Unipolar	TO92	5	17	4
J2711	N JFET	Unipolar	TO92	5	7	7
J2733	N JFET	Unipolar	TO92	5	7	7
J2778	N JFET	Unipolar	TO92	5	7	7
J2779	N JFET	Unipolar	TO92	5	7	7
J2783	N JFET	Unipolar	TO92	5	7	7
J2806	N JFET	Unipolar	TO92	5	7	7
J2809	N JFET	Unipolar	TO92	5	7	7
J2829	N JFET	Unipolar	TO92	5	7	7
J2835	N JFET	Unipolar	TO92	5	7	7
J2864	N JFET	Unipolar	TO92	5	7	7
J2882	N JFET	Unipolar	TO92	5	7	7
J2887	N JFET	Unipolar	TO92	5	7	7
J2888	N JFET	Unipolar	TO92	5	7	7
J2907	N JFET	Unipolar	TO92	5	7	7
J2920	N JFET	Unipolar	TO92	5	7	7
J2923	N JFET	Unipolar	TO92	5	7	7
J2932	N JFET	Unipolar	TO92	5	7	7
J2934	N JFET	Unipolar	TO92	5	7	7
J2954	N JFET	Unipolar	TO92	5	7	7
J2969	N JFET	Unipolar	TO92	5	7	7
J2976	N JFET	Unipolar	TO92	5	7	7
J2991	N JFET	Unipolar	TO92	5	7	7
J2993	N JFET	Unipolar	TO92	5	7	7
J2996	N JFET	Unipolar	TO92	5	7	7
J2998	N JFET	Unipolar	TO92	5	7	7
J3001	N JFET	Unipolar	TO92	5	7	7
J3002	N JFET	Unipolar	TO92	5	7	7
J3003	N JFET	Unipolar	TO92	5	7	7
J304	N JFET	Unipolar	TO92	5	7	7
J305	N JFET	Unipolar	TO92	5	7	7
J308	N JFET	Unipolar	TO92	5	7	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
J309	N JFET	Unipolar	TO92	5	7	7
J310	N JFET	Unipolar	TO92	5	7	7
J500	Current regulator	Unipolar	TO226	5	7	7
J501	Current regulator	Unipolar	TO227	5	7	7
J502	Current regulator	Unipolar	TO226	5	7	7
J503	Current regulator	Unipolar	TO226	5	7	7
J504	Current regulator	Unipolar	TO226	5	7	7
J505	Current regulator	Unipolar	TO226	5	7	7
J506	Current regulator	Unipolar	TO226	5	7	7
J507	Current regulator	Unipolar	TO226	5	7	7
J508	Current regulator	Unipolar	TO226	5	7	7
J509	Current regulator	Unipolar	TO226	5	7	7
J510	Current regulator	Unipolar	TO226	5	7	7
J511	Current regulator	Unipolar	TO226	5	7	7
J6006	P JFET	Unipolar	TO92	5	17	4
J6027	P JFET	Unipolar	TO92	5	17	4
J6040	P JFET	Unipolar	TO92	5	17	4
J6047	P JFET	Unipolar	TO92	5	17	4
J6049	P JFET	Unipolar	TO92	5	17	4
J6077	P JFET	Unipolar	TO92	5	17	4
J6084	P JFET	Unipolar	TO92	5	17	4
J6124	P JFET	Unipolar	TO92	5	17	4
J6130	P JFET	Unipolar	TO92	5	17	4
J6144	N JFET	Unipolar	TO92	5	7	7
J9009	Current regulator	Unipolar	TO92	5	7	7
J9010	Current regulator	Unipolar	TO92	5	7	7
J9013	Current regulator	Unipolar	TO92	5	7	7
J9016	Current regulator	Unipolar	TO92	5	7	7
J9027	Current regulator	Unipolar	TO92	5	7	7
J9060	Current regulator	Unipolar	TO92	5	7	7
JPAD5	Low-leakage diode	Unipolar	TO92	5	7	7
JPAD50	Low-leakage diode	Unipolar	TO226	5	7	7
K102P1	Optoisolator- telecom	Coupler	TH	55	50	21
K102P2	Optoisolator- telecom	Coupler	TH	55	50	21
K102P3	Optoisolator- telecom	Coupler	TH	55	50	21
K104P(SL5504)	Optoisolator- telecom	Coupler	TH	55	50	21
K109P(SL5511)	Optoisolator- telecom	Coupler	TH	55	50	21
K241P(PO41)	Optoisolator- telecom	Coupler	TH	55	50	21
K243P(PO43)	Optoisolator- telecom	Coupler	TH	55	50	21
K244P(PO44)	Optoisolator- telecom	Coupler	TH	55	50	21
K258P(SL5500)	Optoisolator- telecom	Coupler	TH	55	50	21
K259P(SL5501)	Optoisolator- telecom	Coupler	TH	55	50	21
K3010P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3011P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3012P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3020P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3021P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3022P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3023P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3051P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K3052P(G)	Optoisolator - triac	Coupler	TH	55	50	21
K502PA	Sensor	Detector	TH	113	729	428
K507PA	Sensor	Detector	TH	113	729	428
K512PA	Sensor	Detector	TH	113	729	428
K517PA	Sensor	Detector	TH	113	729	428
K827P	Optoisolator - mulitchannel	Coupler	TH	55	50	21
K847P	Optoisolator - mulitchannel	Coupler	TH	55	50	21
LL4148	Small signal	Diode	SOD80	8	40	5
LL4150	Small signal	Diode	SOD80	8	40	5
LL4151	Small signal	Diode	SOD80	8	40	5
LL4154	Small signal	Diode	SOD80	8	40	5
LL4448	Small signal	Diode	SOD80	8	40	5
LS4148	Small signal	Diode	MELF	8	40	5

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
LS4150	Small signal	Diode	MELF	8	40	5
LS4151	Small signal	Diode	MELF	8	40	5
LS4154	Small signal	Diode	MELF	8	40	5
LS4448	Small signal	Diode	MELF	8	40	5
M10261	Protection	CMOS	PSOP	x	x	x
M10262	Protection	CMOS	PSOP	x	x	x
MC custom	Custom ASICs	SCMOS	As required	5	1485	72
MC05E	5-K gate array	SCMOS	As required	5	400	19
MC05K	5-K gate array	SCMOS	As required	5	400	19
MC10E	10-K gate array	SCMOS	As required	5	720	35
MC10K	10-K gate array	SCMOS	As required	5	720	35
MCL4148	Small signal	Diode	MELF	8	40	5
MCL4150	Small signal	Diode	MELF	8	40	5
MCL4154	Small signal	Diode	MELF	8	40	5
MCL4448	Small signal	Diode	MELF	8	40	5
MCM series	Composite arrays family	SCMOS	As required	5	1531	75
MCR22E	22-K gate array	SCMOS	As required	5	822	40
MCR22K	22-K gate array	SCMOS	As required	5	822	40
MCR35E	35-K gate array	SCMOS	As required	5	1220	59
MCR35K	35-K gate array	SCMOS	As required	5	1220	59
MCR50E	50-K gate array	SCMOS	As required	5	1405	68
MCR50K	50-K gate array	SCMOS	As required	5	1405	68
MCT0.4K	400 gate array	SCMOS	As required	5	85	4
MCT0.8K	800 gate array	SCMOS	As required	5	126	6
MCT02K	2-K gate array	SCMOS	As required	5	222	11
MCT08E	8-K gate array	SCMOS	As required	5	555	27
MCT08K	8-K gate array	SCMOS	As required	5	555	27
MCT12E	12-K gate array	SCMOS	As required	5	694	34
MCT12K	12-K gate array	SCMOS	As required	5	694	34
MCT29E	29-K gate array	SCMOS	As required	5	1069	52
MCT29K	29-K gate array	SCMOS	As required	5	1069	52
MCT6	Optoisolator - multichannel	Coupler	TH	55	50	21
MCT62	Optoisolator - multichannel	Coupler	TH	55	50	21
MCT66K	66-K gate array	SCMOS	As required	5	1805	88
MF05K	5-K gate array	BICMOS	As required	5	156	10
MF13K	13-K gate array	BICMOS	As required	5	320	20
MF32K	32-K gate array	BICMOS	As required	5	640	40
MF50K	50-K gate array	BICMOS	As required	5	910	57
MFM series	Composite arrays family	BICMOS	As required	5	1801	113
MG custom	Custom ASICs	SCMOS2	As required	5	2157	25
MG1001	1.8-K sea-of-gates	SCMOS2	As required	5	142	2
MG1004	4-K sea-of-gates	SCMOS2	As required	5	209	2
MG1014	14-K sea-of-gates	SCMOS2	As required	5	328	4
MG1033	33-K sea-of-gates	SCMOS2	As required	5	422	5
MG1042	42-K sea-of-gates	SCMOS2	As required	5	746	9
MG1052	52-K sea-of-gates	SCMOS2	As required	5	1034	12
MG1070	70-K sea-of-gates	SCMOS2	As required	5	1296	15
MG1090	90-K sea-of-gates	SCMOS2	As required	5	1341	15
MG1120	120-K sea-of-gates	SCMOS2	As required	5	1687	19
MG1140	140-K sea-of-gates	SCMOS2	As required	5	1940	22
MG1265	265-K sea-of-gates	SCMOS2	As required	5	2774	32
MG1265E	265-K sea-of-gates -RT	SCMOS2	As required	5	2774	32
MGM series	Composite arrays family	SCMOS2	As required	5	2197	25
MOC205	Optoisolator SMD	Coupler	SMD	55	50	21
MOC206	Optoisolator SMD	Coupler	SMD	55	50	21
MOC207	Optoisolator SMD	Coupler	SMD	55	50	21
MOC211	Optoisolator SMD	Coupler	SMD	55	50	21
MOC212	Optoisolator SMD	Coupler	SMD	55	50	21
MOC213	Optoisolator SMD	Coupler	SMD	55	50	21
MOC215	Optoisolator SMD	Coupler	SMD	55	50	21
MOC216	Optoisolator SMD	Coupler	SMD	55	50	21
MOC217	Optoisolator SMD	Coupler	SMD	55	50	21
MOD100B	Power module	N LP B	Module	4	3	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
MOD200B	Power module	N LP B	Module	4	3	7
MOD200C	Power module	N LP B	Module	4	3	7
MOD400B	Power module	N LP B	Module	4	3	7
MOD500C	Power module	N LP B	Module	4	3	7
ND2012L	N DMOS	N LP B	TO92	4	3	7
ND2020L	N DMOS	N LP B	TO92	4	3	7
ND2406L	N DMOS	N LP B	TO92	4	3	7
ND2410L	N DMOS	N LP B	TO92	4	3	7
P1086	P JFET	Unipolar	TO92	5	17	4
P1087	P JFET	Unipolar	TO92	5	17	4
PAD1	Low-leakage diode	Unipolar	TO18	7.2	7	7
PAD5	Low-leakage diode	Unipolar	TO18	7.2	7	7
PAD50	Low-leakage diode	Unipolar	TO18	7.2	7	7
PF1016	P JFET	Unipolar	TO18	5	17	4
PF1034	P JFET	Unipolar	TO18	5	17	4
PF1077	P JFET	Unipolar	TO18	5	17	4
PF309PC	P JFET	Unipolar	TO18	5	17	4
PF975	P JFET	Unipolar	TO18	5	17	4
PMA1003	N power MOS	N 1.6	SDIP	4	1	2
PMA1010	N power MOS	N 1.6	SDIP	4	1	2
PMM5001	N power MOS	N LP B	Module	4	3	7
PN4117A	N JFET	Unipolar	TO92	5	7	7
PN4118A	N JFET	Unipolar	TO92	5	7	7
PN4119A	N JFET	Unipolar	TO92	5	7	7
PN4391	N JFET	Unipolar	TO92	5	7	7
PN4392	N JFET	Unipolar	TO92	5	7	7
PN4393	N JFET	Unipolar	TO92	5	7	7
S153P	Photo PIN	Detector	TH	113	729	428
S186P	Photo PIN	Detector	TH	113	729	428
S254PN	Photo transistor	Detector	TH	113	729	428
S289P	Photo darlington	Detector	TH	113	729	428
S350P	Photo transistor	Detector	TH	113	729	428
S525T	N-dual gate	MOS	SOT23	11	50	9
S594T	MOSMIC	MOS	SOT143	11	58	7
S595T	MOSMIC	MOS	SOT143	11	58	7
S822T	NPN small signal	Bipolar	SOT143	11	50	9
S849T	MOSMIC	MOS	SOT143	11	58	7
S852T	NPN small signal	Bipolar	SOT23	11	50	9
S858TA1	BIPMIC	Bipolar	SOT143	11	50	9
S858TA3	BIPMIC	Bipolar	SOT143	11	50	9
S860T	BIPMIC	Bipolar	SOT143	11	50	9
S868T	BIPMIC	Bipolar	SOT143	11	50	9
S872T	BIPMIC	Bipolar	SOT143	11	50	9
S886T	MOSMIC	MOS	SOT143	11	58	7
S888T	N-dual gate	MOS	SOT143	11	50	9
S913T	MOSMIC	MOS	SOT143	11	58	7
S918T	MOSMIC	MOS	SOT143	11	58	7
S949T	MOSMIC	MOS	SOT143	11	58	7
SD210DE	N DMOS lateral	N DMOS	TO72	4	12	2
SD211	N DMOS lateral	N DMOS	TO72	4	12	2
SD211DE	N DMOS lateral	N DMOS	TO72	4	12	2
SD213DE	N DMOS lateral	N DMOS	TO72	4	12	2
SD214DE	N DMOS lateral	N DMOS	TO72	4	12	2
SD215DE	N DMOS lateral	N DMOS	TO72	4	12	2
SD5000I	Quad N DMOS lateral	N DMOS	PDIP	4	12	2
SD5000N	Quad N DMOS lateral	N DMOS	PDIP	4	12	2
SD5001N	Quad N DMOS lateral	N DMOS	PDIP	4	12	2
SD5400CY	Quad N DMOS lateral	N DMOS	PSOP	4	12	2
SD5401CY	Quad N DMOS lateral	N DMOS	PSOP	4	12	2
Si4410DY	LITTLE FOOT	N 12.0	PSOP	4	5	0.8
Si4412DY	LITTLE FOOT	N 12.0	PSOP	4	5	0.8
SI4414	LITTLE FOOT	N 12.0	PSOP	4	5	0.8
Si4431DY	LITTLE FOOT	P 12.0	PSOP	4	x	x

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
Si4435DY	LITTLE FOOT	P 12.0	PSOP	4	x	x
Si4450DY	LITTLE FOOT	N 12.0	PSOP	4	5	0.8
Si4532DY	LITTLE FOOT	PN 12.0	PSOP	4	5	0.8
Si4539DY	LITTLE FOOT	PN 12.0	PSOP	4	5	0.8
SI4902	LITTLE FOOT	N 12.0	PSOP	4	5	0.8
Si4936DY	LITTLE FOOT	N 12.0	PSOP	4	5	0.8
Si4946	LITTLE FOOT	N 8.0	PSOP	4	10	3
Si4947	LITTLE FOOT	P 12.0	PSOP	4	x	x
Si4947DY	LITTLE FOOT	P 12.0	PSOP	4	x	x
Si4949	LITTLE FOOT	N 8.0	PSOP	4	10	3
Si4953DY	LITTLE FOOT	P 12.0	PSOP	4	x	x
Si6402DQ	LITE FOOT	N 2.5	PTSSOP	4	2	2
Si6426DQ	LITE FOOT	N 5.9	PTSSOP	4	x	x
Si6426DQ	LITE FOOT	N 12.0	PTSSOP	4	5	0.8
Si6433DQ	LITE FOOT	P 5.9	PTSSOP	4	26	4.4
Si6434DQ	LITE FOOT	N 12.0	PTSSOP	4	5	0.8
Si6435DQ	LITE FOOT	P 12.0	PTSSOP	4	x	x
Si6436DQ	LITE FOOT	N 2.5	PTSSOP	4	2	2
Si6447DQ	LITE FOOT	P 2.5	PTSSOP	4	4	1
Si6501DQ	LITE FOOT	N 2.5	PTSSOP	4	2	2
Si6542DQ	LITE FOOT	P 2.5	PTSSOP	4	4	1
Si6543DQ	LITE FOOT	N 12.0	PTSSOP	4	5	0.8
Si6552DQ	LITE FOOT	N 5.9	PTSSOP	4	x	x
Si6943DQ	LITE FOOT	P 5.9	PTSSOP	4	26	4.4
Si6946DQ	LITE FOOT	N 5.9	PTSSOP	4	x	x
Si6953DQ	LITE FOOT	P 2.5	PTSSOP	4	4	1
Si6954DQ	LITE FOOT	N 12.0	PTSSOP	4	5	0.8
Si6955DQ	LITE FOOT	P 12.0	PTSSOP	4	x	x
Si6956DQ	LITE FOOT	N 2.5	PTSSOP	4	2	2
Si9100	Power conversion	SI II	PDIP, PLCC	4	7	2
Si9102	Power conversion	SI II	PDIP, PLCC, PSOP	4	7	2
Si9104	Power conversion	SI II	PDIP, PLCC, PSOP	4	7	2
Si9105	Power conversion	SI II	PDIP, PLCC, PSOP	4	7	2
Si9110	Power conversion	SI II	PDIP, PSOP	4	7	2
Si9111	Power conversion	SI II	PDIP, PSOP	4	7	2
Si9112	Power conversion	SI II	PDIP, PSOP	4	7	2
Si9114	Power conversion	SI II	PDIP, PSOP	4	7	2
Si9117	Telecom HF controller	SI II	PSOP	4	7	2
Si9120	Power conversion	SI II	PDIP, PSOP	4	7	2
SI9140	SMP conroller	BCD 15	PSOP	4	18	7
Si9145	Power conversion	BCD 15	PSOP, PTSSOP	4	18	7
Si9150	Power conversion	SI IV	PSOP	4	48	12
Si9180	Controller/converter	SI IV	PSOP	4	48	12
Si9200	Can bus driver	SI IV	PSOP	4	48	12
Si9200EY	Bus interface	SI IV	PSOP	4	48	12
Si9241EY	Bus interface	SI II	PSOP	4	7	2
Si9243EY	Bus interface	SI II	PSOP	4	7	2
Si9400DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9405DY	LITTLE FOOT	P 1.6	PSOP	4	6	1
Si9407DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9410	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9420	LITTLE FOOT	N 1.6	PSOP	4	1	2
Si9424	LITTLE FOOT	N 1.6	PSOP	4	1	2
Si9426	LITTLE FOOT	N 5.9	PSOP	4	x	x
Si9430DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9433DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9434DY	LITTLE FOOT	P 5.9	PSOP	4	26	4.4
Si9435DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9529	LITTLE FOOT	N 5.9	PSOP	4	x	x
Si9706	Power interface	BCD 15	PSOP	4	18	7
Si9707	Power interface	BCD 15	PSOP	4	18	7
Si9710	Power interface	BCD 15	PSOP	4	18	7
Si9711	Power interface	BCD 15	PSOP	4	18	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
Si9712	Power interface	BCD 15	PSOP	4	18	7
Si9717	Battery disconnect switch	SI II	PSOP	4	7	2
Si9718	Battery disconnect switch	SI II	PSOP	4	7	2
Si9902	LITTLE FOOT	N 5.9	PSOP	4	x	x
Si9910	Motor control	SI II	PDIP, PSOP	4	7	2
Si9925DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9926	LITTLE FOOT	N 5.9	PSOP	4	x	x
Si9928DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9933DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9934	LITTLE FOOT	P 5.9	PSOP	4	26	4.4
Si9936DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9939DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9940DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9942DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9943	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9944	LITTLE FOOT	N LP D	PSOP	4	11	2
Si9945DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9947DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9948DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9950	LITTLE FOOT	P 1.6	PSOP	4	6	1
Si9952	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9953DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9955DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9956DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9958DY	LITTLE FOOT	P 2.5	PSOP	4	4	1
Si9959DY	LITTLE FOOT	N 2.5	PSOP	4	2	2
Si9961	Motor control	SI III	PSOP	4	88	23
Si9961CY	Disk drive	SI III	PSOP	4	88	23
Si9976	Motor control	SI II	PSOP	4	7	2
Si9978	Motor control	SI II	PSOP	4	7	2
Si9979	Motor control	SI II	PQFP	4	7	2
Si9986	H-bridge	BCD 15	PSOP	4	18	7
Si9990	Spindle motor driver	SI IV	PQFP	4	48	12
Si9990CS	Disk drive	SI IV	PQFP	4	48	12
SMD10P05	P power MOS	P 1.6	TO252	4	6	1
SMD10P06	P power MOS	P 2.5	TO252	4	4	1
SMD10P06L	P power MOS	P 2.5	TO252	4	4	1
SMD15N05	N power MOS	N 2.5	TO252	4	2	2
SMD15N06	N power MOS	N 2.5	TO252	4	2	2
SMD25N05-45	N power MOS	N 2.5	TO252	4	2	2
SMD30N03-30L	N power MOS	N 2.5	TO252	4	2	2
SMM14N65-2	N power MOS	N LP B	TO3	4	3	7
SMP20P10	P power MOS	P 2.5	TO220	4	4	1
SMP25N05-45L	N power MOS	N 2.5	TO220	4	2	2
SMP25N06	N power MOS	N 1.6	TO220	4	1	2
SMP30N10	N power MOS	N 1.6	TO220	4	1	2
SMP40N10	N power MOS	N 2.5	TO220	4	2	2
SMP40P06	P power MOS	P 2.5	TO220	4	4	1
SMP50N06-25	N power MOS	N 2.5	TO220	4	2	2
SMP60N03-10L	N power MOS	N 2.5	TO220	4	2	2
SMP60N06-14	N power MOS	N 2.5	TO220	4	2	2
SMP60N06-18	N power MOS	N 2.5	TO220	4	2	2
SMU10P0501	P power MOS	P 1.6	TO251	4	6	1
SMU15N0501	N power MOS	N 2.5	TO251	4	2	2
SMU25N05-45	N power MOS	N 2.5	TO251	4	2	2
SMU30N03-30	N power MOS	N 2.5	TO251	4	2	2
SMW20P10	P power MOS	P B	TO247	4	35	6
SMW60N06-18	N power MOS	N 2.5	TO247	4	2	2
SMW60N10	N power MOS	N 1.6	TO247	4	1	2
SMW70N06-14	N power MOS	N 2.5	TO247	4	2	2
SSD500201	N DMOS lateral	N DMOS	SDIP	4	12	2
SSD50020101	N DMOS lateral	N DMOS	SDIP	4	12	2
SST108	N JFET	Unipolar	SOT23	5	7	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
SST109	N JFET	Unipolar	SOT23	5	7	7
SST110	N JFET	Unipolar	SOT23	5	7	7
SST111	N JFET	Unipolar	SOT23	5	7	7
SST112	N JFET	Unipolar	SOT23	5	7	7
SST113	N JFET	Unipolar	SOT23	5	7	7
SST174	P JFET	Unipolar	SOT23	5	17	4
SST175	P JFET	Unipolar	SOT23	5	17	4
SST176	P JFET	Unipolar	SOT23	5	17	4
SST177	P JFET	Unipolar	SOT23	5	17	4
SST201	N JFET	Unipolar	SOT23	5	7	7
SST202	N JFET	Unipolar	SOT23	5	7	7
SST204	N JFET	Unipolar	SOT23	5	7	7
SST211	N DMOS lateral	N DMOS	SOT22	4	12	2
SST213	N DMOS lateral	N DMOS	SOT23	4	12	2
SST214DE	N DMOS lateral	N DMOS	SOT23	4	12	2
SST215	N DMOS lateral	N DMOS	SOT23	4	12	2
SST215DE	N DMOS lateral	N DMOS	SOT23	4	12	2
SST270	P JFET	Unipolar	SOT23	5	17	4
SST271	P JFET	Unipolar	SOT23	5	17	4
SST308	N JFET	Unipolar	SOT23	5	7	7
SST309	N JFET	Unipolar	SOT23	5	7	7
SST310	N JFET	Unipolar	SOT23	5	7	7
SST404	Dual N JFET	Unipolar	SOT23	5	58	10
SST406	Dual N JFET	Unipolar	SOT23	5	58	10
SST4117	N JFET	Unipolar	SOT23	5	7	7
SST4119	N JFET	Unipolar	SOT23	5	7	7
SST4391	N JFET	Unipolar	SOT23	5	7	7
SST4392	N JFET	Unipolar	SOT23	5	7	7
SST4393	N JFET	Unipolar	SOT23	5	7	7
SST440	Dual N JFET	Unipolar	SOT23	5	58	10
SST441	Dual N JFET	Unipolar	SOT23	5	58	10
SST4416	N JFET	Unipolar	SOT23	5	7	7
SST4417	N JFET	Unipolar	SOT23	5	7	7
SST4418	N JFET	Unipolar	SOT23	5	7	7
SST4419	N JFET	Unipolar	SOT23	5	7	7
SST5484	N JFET	Unipolar	SOT23	5	7	7
SST5485	N JFET	Unipolar	SOT23	5	7	7
SST5486	N JFET	Unipolar	SOT23	5	7	7
SSTC34A	N JFET	Unipolar	SOT23	5	7	7
SSTC43	N JFET	Unipolar	SOT23	5	7	7
SSTC48	N JFET	Unipolar	SOT23	5	7	7
SSTC59	N JFET	Unipolar	SOT23	5	7	7
SSTDPAD100	DUAL low-leakage diode	Unipolar	PSOP	5	60	10
SSTDPAD5	DUAL low-leakage diode	Unipolar	PSOP	5	60	10
SSTH20	N JFET	Unipolar	SOT23	5	7	7
SSTH24	N JFET	Unipolar	SOT23	5	7	7
SSTI03	N JFET	Unipolar	SOT23	5	7	7
SSTN02	N JFET	Unipolar	SOT23	5	7	7
SSTP23	N JFET	Unipolar	SOT23	5	7	7
SSTP24	N JFET	Unipolar	SOT23	5	7	7
SSTP26	N JFET	Unipolar	SOT23	5	7	7
SSTP27	N JFET	Unipolar	SOT23	5	7	7
SSTP53	N JFET	Unipolar	SOT23	5	7	7
SSTP54	N JFET	Unipolar	SOT23	5	7	7
SSTPAD100	Low-leakage diode	Unipolar	SOT23	5	7	7.2
SSTPAD5	Low-leakage diode	Unipolar	SOT23	5	7	7.2
SSTS22	P JFET	Unipolar	SOT23	5	17	4
SSTV01	N JFET	Unipolar	SOT23	5	7	7
SSTV02	N JFET	Unipolar	SOT23	5	7	7
SSTZ38	N JFET	Unipolar	SOT23	5	7	7
SSTZ39	N JFET	Unipolar	SOT23	5	7	7
SSTZ40	N JFET	Unipolar	SOT23	5	7	7
SSTZ41	N JFET	Unipolar	SOT23	5	7	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
SSTZ56	N JFET	Unipolar	SOT23	5	7	7
SUB40N06-25	N power MOS	N 8.0	TO263	4	10	3
SUB60N06-18	N power MOS	N 8.0	TO263	4	10	3
SUB65P06-20	N power MOS	P 8.0	TO263	4	x	x
SUB70N06-14	N power MOS	N 8.0	TO263	4	10	3
SUB75N05-06	N power MOS	N 8.0	TO263	4	10	3
SUB75N06-08	N power MOS	N 8.0	TO263	4	10	3
SUB75N08-10	N power MOS	N 8.0	TO263	4	10	3
SUD25N06-45	N power MOS	N 8.0	TO252	4	10	3
SUD25N06-45	N power MOS	N 8.0	TO252	4	10	3
SUD40N06-24	N power MOS	N 8.0	TO252	4	10	3
SUD40N06-24	N power MOS	N 8.0	TO252	4	10	3
SUD40N06-25	N power MOS	N 8.0	TO252	4	10	3
SUD45N05-20	N power MOS	N 8.0	TO252	4	10	3
SUD45P03-15	P power MOS	P 8.0	TO252	4	x	3
SUD50N03-10	N power MOS	N 8.0	TO252	4	10	3
SUP40N06-25	N power MOS	N 8.0	TO220	4	10	3
SUP60N06-18	N power MOS	N 8.0	TO220	4	10	3
SUP65P06-20	P power MOS	P 8.0	TO220	4	x	3
SUP70N06-14	N power MOS	N 8.0	TO220	4	10	3
SUP75N05-06	N power MOS	N 8.0	TO220	4	10	3
SUP75N06-08	N power MOS	N 8.0	TO220	4	10	3
SUP75N08-10	N power MOS	N 8.0	TO220	4	10	3
T4225B	Clock receiver	UNI	CHIP	11	10	7
TBA120T	TV sound	STD	PDIP	16	6	3
TCDF1900	Optoisolator	Coupler	TH	55	50	21
TCDF1910	Optoisolator	Coupler	TH	55	50	21
TCDS1001	Optoisolator	Coupler	TH	55	50	21
TCDT1100(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1101(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1102(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1103(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1110(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1120(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1122(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1123(G)	Optoisolator	Coupler	TH	55	50	21
TCDT1124(G)	Optoisolator	Coupler	TH	55	50	21
TCMT1020	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1021	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1022	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1023	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1024	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1030	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1031	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1032	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1033	Optoisolator SMD	Coupler	SMD	55	50	21
TCMT1034	Optoisolator SMD	Coupler	SMD	55	50	21
TCRT1000	Sensor	Detector	TH	113	729	428
TCRT1010	Sensor	Detector	TH	113	729	428
TCRT5000	Sensor	Detector	TH	113	729	428
TCSS1100	Sensor	Detector	TH	113	729	428
TCSS2100	Sensor	Detector	TH	113	729	428
TCST1000	Sensor	Detector	TH	113	729	428
TCST1030	Sensor	Detector	TH	113	729	428
TCST1103	Sensor	Detector	TH	113	729	428
TCST1202	Sensor	Detector	TH	113	729	428
TCST1230	Sensor	Detector	TH	113	729	428
TCST1300	Sensor	Detector	TH	113	729	428
TCST2000	Sensor	Detector	TH	113	729	428
TCST2103	Sensor	Detector	TH	113	729	428
TCST2202	Sensor	Detector	TH	113	729	428
TCST2300	Sensor	Detector	TH	113	729	428
TCST5123	Sensor	Detector	TH	113	729	428

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
TCVT1300	Encoder	Detector	TH	113	729	428
TCYS5201	Sensor	Detector	TH	113	729	428
TCYS6201	Sensor	Detector	TH	113	729	428
TCZS8000	Emitter/detector pair	Detector	TH	113	729	428
TCZS8100	Emitter/detector pair	Detector	TH	113	729	428
TCZT8012	Emitter/detector pair	Detector	TH	113	729	428
TCZT8020	Emitter/detector pair	Detector	TH	113	729	428
TD13002	NPN power	Bipolar	TO252	11	50	9
TD13003	NPN power	Bipolar	TO252	11	50	9
TD13004D	NPN power	Bipolar	TO252	11	50	9
TD13005D	NPN power	Bipolar	TO252	11	50	9
TDA1072A	AM receiver	STD	PDIP	16	6	3
TDA1083	AM/FM receiver	STD	PDIP	16	6	3
TDA4173	TV deflection	STD	HW7	16	6	3
TDA4210	FM-IF amplifier	STD	PDIP	16	6	3
TDA4439	TV video	STD	PDIP	16	6	3
TDA4445B	TV sound	STD	PDIP	16	6	3
TDA4452	TV video	UNI	PDIP	11	10	7
TDA4453	TV video	STD	PDIP	16	6	3
TDA4454	TV video	UNI	PDIP	11	10	7
TDA4462	TV sound	UNI	PDIP	11	10	7
TDA4470	TV sound/video	UNI	PDIP, PSOP	11	10	7
TDA4471	TV sound/video	UNI	PDIP	11	10	7
TDA4472	TV sound/video	UNI	PDIP, PSOP	11	10	7
TDA4474	TV sound/video	UNI	PDIP	11	10	7
TDA4481	TV sound	UNI	PDIP	11	10	7
TDA4482	TV sound	UNI	PDIP	11	10	7
TDA4483	TV sound	UNI	PDIP	11	10	7
TDA4565	Chroma-video	UNI	PDIP	11	10	7
TDA4950	E/W correction	STD	PDIP	16	6	3
TDA8145	E/W correction	STD	PDIP	16	6	3
TDSG1150	Green display	Display	TH	1	744	53
TDSG1160	Green display	Display	TH	1	744	53
TDSG3150	Green display	Display	TH	1	744	53
TDSG3160	Green display	Display	TH	1	744	53
TDSG5150	Green display	Display	TH	1	744	53
TDSG5160	Green display	Display	TH	1	744	53
TDSL1150	Low-current display	Display	TH	1	744	53
TDSL1160	Low-current display	Display	TH	1	744	53
TDSL3150	Low-current display	Display	TH	1	744	53
TDSL3160	Low-current display	Display	TH	1	744	53
TDSL5150	Low-current display	Display	TH	1	744	53
TDSL5160	Low-current display	Display	TH	1	744	53
TDSO1150	High-efficiency red display	Display	TH	1	744	53
TDSO1160	High-efficiency red display	Display	TH	1	744	53
TDSO3150	High-efficiency red display	Display	TH	1	744	53
TDSO3160	High-efficiency red display	Display	TH	1	744	53
TDSO5150	High-efficiency red display	Display	TH	1	744	53
TDSO5160	High-efficiency red display	Display	TH	1	744	53
TDSR1150	Red display	Display	TH	1	744	53
TDSR1160	Red display	Display	TH	1	744	53
TDSR3150	Red display	Display	TH	1	744	53
TDSR3160	Red display	Display	TH	1	744	53
TDSR5150	Red display	Display	TH	1	744	53
TDSR5160	Red display	Display	TH	1	744	53
TDSY1150	Yellow display	Display	TH	1	744	53
TDSY1160	Yellow display	Display	TH	1	744	53
TDSY3150	Yellow display	Display	TH	1	744	53
TDSY3160	Yellow display	Display	TH	1	744	53
TDSY5150	Yellow display	Display	TH	1	744	53
TDSY5160	Yellow display	Display	TH	1	744	53
TE13004D	NPN power	Bipolar	TO220	11	50	9
TE13005D	NPN power	Bipolar	TO220	11	50	9

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
TE13008	NPN power	Bipolar	TO220	11	50	9
TE13009	NPN power	Bipolar	TO220	11	50	9
TEA1007	Phase control	STD	PDIP	16	6	3
TEA1024	Zero crossing	UNI	PDIP	11	10	7
TEA1124	Zero crossing	UNI	PDIP	11	10	7
TEA2029CV	Pulse processing	UNI	PDIP	11	10	7
TEA8172	Video deflection	STD	HW7	16	6	3
TEFT4300	Photo transistor	Detector	TH	113	729	428
TEMT2100	Photo transistor SMD	Detector	SMD	113	729	428
TEMT2200	Photo transistor SMD	Detector	SMD	113	729	428
TEMT3700	Photo transistor SMD	Detector	SMD	113	729	428
TEMT4700	Photo transistor SMD	Detector	SMD	113	729	428
TESS5400	Photo detector	Detector	TH	113	729	428
TEST2600	Photo transistor	Detector	TH	113	729	428
TFDS3000	IrDA module	Module	SMD	14	211	41
TFDS6000	IrDA module	Module	SMD	14	211	41
TFMM5300	Photomodule SMD	Module	SMD	14	211	41
TFMM5330	Photomodule SMD	Module	SMD	14	211	41
TFMM5360	Photomodule SMD	Module	SMD	14	211	41
TFMM5370	Photomodule SMD	Module	SMD	14	211	41
TFMM5380	Photomodule SMD	Module	SMD	14	211	41
TFMM5400	Photomodule SMD	Module	SMD	14	211	41
TFMM5560	Photomodule SMD	Module	SMD	14	211	41
TFMS1300	Photomodule short burst	Module	TH	14	211	41
TFMS1330	Photomodule short burst	Module	TH	14	211	41
TFMS1360	Photomodule short burst	Module	TH	14	211	41
TFMS1370	Photomodule short burst	Module	TH	14	211	41
TFMS1380	Photomodule short burst	Module	TH	14	211	41
TFMS1400	Photomodule short burst	Module	TH	14	211	41
TFMS1560	Photomodule short burst	Module	TH	14	211	41
TFMS5300	Photomodule	Module	TH	14	211	41
TFMS5330	Photomodule	Module	TH	14	211	41
TFMS5360	Photomodule	Module	TH	14	211	41
TFMS5370	Photomodule	Module	TH	14	211	41
TFMS5380	Photomodule	Module	TH	14	211	41
TFMS5400	Photomodule	Module	TH	14	211	41
TFMS5560	Photomodule	Module	TH	14	211	41
TFMS8300	Photomodule small	Module	TH	14	211	41
TFMS8330	Photomodule small	Module	TH	14	211	41
TFMS8360	Photomodule small	Module	TH	14	211	41
TFMS8370	Photomodule small	Module	TH	14	211	41
TFMS8380	Photomodule small	Module	TH	14	211	41
TFMS8400	Photomodule small	Module	TH	14	211	41
TFMS8560	Photomodule small	Module	TH	14	211	41
TFMT1300	Photomodule short burst	Module	TH	14	211	41
TFMT1330	Photomodule short burst	Module	TH	14	211	41
TFMT1360	Photomodule short burst	Module	TH	14	211	41
TFMT1370	Photomodule short burst	Module	TH	14	211	41
TFMT1380	Photomodule short burst	Module	TH	14	211	41
TFMT1400	Photomodule short burst	Module	TH	14	211	41
TFMT1560	Photomodule short burst	Module	TH	14	211	41
TFMT5300	Photomodule	Module	TH	14	211	41
TFMT5330	Photomodule	Module	TH	14	211	41
TFMT5360	Photomodule	Module	TH	14	211	41
TFMT5370	Photomodule	Module	TH	14	211	41
TFMT5380	Photomodule	Module	TH	14	211	41
TFMT5400	Photomodule	Module	TH	14	211	41
TFMT5560	Photomodule	Module	TH	14	211	41
TLBR5410	Blinking LED	LED	TH	154	198	65
TLDR4400	High-intensity red	LED	TH	154	198	65
TLDR4900	High-intensity red	LED	TH	154	198	65
TLDR5400	High-intensity red	LED	TH	154	198	65
TLDR5800	High-intensity red	LED	TH	154	198	65

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
TLHB4200	High-efficiency blue	LED	TH	154	198	65
TLHB4400	High-efficiency blue	LED	TH	154	198	65
TLHB5400	High-efficiency blue	LED	TH	154	198	65
TLHB5800	High-efficiency blue	LED	TH	154	198	65
TLHE5800	High-intensity yellow	LED	TH	154	198	65
TLHF5800	High-intensity orange	LED	TH	154	198	65
TLHG4200	High-efficiency green	LED	TH	154	198	65
TLHG4201	High-efficiency green	LED	TH	154	198	65
TLHG4205	High-efficiency green	LED	TH	154	198	65
TLHG4400	High-efficiency green	LED	TH	154	198	65
TLHG4401	High-efficiency green	LED	TH	154	198	65
TLHG4405	High-efficiency green	LED	TH	154	198	65
TLHG4600	High-efficiency green	LED	TH	154	198	65
TLHG4601	High-efficiency green	LED	TH	154	198	65
TLHG4605	High-efficiency green	LED	TH	154	198	65
TLHG4900	High-efficiency green	LED	TH	154	198	65
TLHG5200	High-efficiency green	LED	TH	154	198	65
TLHG5201	High-efficiency green	LED	TH	154	198	65
TLHG5205	High-efficiency green	LED	TH	154	198	65
TLHG5400	High-efficiency green	LED	TH	154	198	65
TLHG5401	High-efficiency green	LED	TH	154	198	65
TLHG5405	High-efficiency green	LED	TH	154	198	65
TLHG5800	High-efficiency green	LED	TH	154	198	65
TLHO4200	High-efficiency orange	LED	TH	154	198	65
TLHO4400	High-efficiency orange	LED	TH	154	198	65
TLHO4900	High-efficiency orange	LED	TH	154	198	65
TLHP4200	High-efficiency pure green	LED	TH	154	198	65
TLHP4400	High-efficiency pure green	LED	TH	154	198	65
TLHP5800	High-efficiency pure green	LED	TH	154	198	65
TLHR4200	High-efficiency red	LED	TH	154	198	65
TLHR4201	High-efficiency red	LED	TH	154	198	65
TLHR4205	High-efficiency red	LED	TH	154	198	65
TLHR4400	High-efficiency red	LED	TH	154	198	65
TLHR4401	High-efficiency red	LED	TH	154	198	65
TLHR4405	High-efficiency red	LED	TH	154	198	65
TLHR4600	High-efficiency red	LED	TH	154	198	65
TLHR4601	High-efficiency red	LED	TH	154	198	65
TLHR4605	High-efficiency red	LED	TH	154	198	65
TLHR4900	High-efficiency red	LED	TH	154	198	65
TLHR5200	High-efficiency red	LED	TH	154	198	65
TLHR5201	High-efficiency red	LED	TH	154	198	65
TLHR5205	High-efficiency red	LED	TH	154	198	65
TLHR5400	High-efficiency red	LED	TH	154	198	65
TLHR5401	High-efficiency red	LED	TH	154	198	65
TLHR5405	High-efficiency red	LED	TH	154	198	65
TLHY4200	High-efficiency yellow	LED	TH	154	198	65
TLHY4201	High-efficiency yellow	LED	TH	154	198	65
TLHY4205	High-efficiency yellow	LED	TH	154	198	65
TLHY4400	High-efficiency yellow	LED	TH	154	198	65
TLHY4401	High-efficiency yellow	LED	TH	154	198	65
TLHY4405	High-efficiency yellow	LED	TH	154	198	65
TLHY4600	High-efficiency yellow	LED	TH	154	198	65
TLHY4601	High-efficiency yellow	LED	TH	154	198	65
TLHY4605	High-efficiency yellow	LED	TH	154	198	65
TLHY4900	High-efficiency yellow	LED	TH	154	198	65
TLHY5200	High-efficiency yellow	LED	TH	154	198	65
TLHY5201	High-efficiency yellow	LED	TH	154	198	65
TLHY5205	High-efficiency yellow	LED	TH	154	198	65
TLHY5400	High-efficiency yellow	LED	TH	154	198	65
TLHY5401	High-efficiency yellow	LED	TH	154	198	65
TLHY5405	High-efficiency yellow	LED	TH	154	198	65
TLHY5800	High-efficiency yellow	LED	TH	154	198	65
TLLG4400	Low-current green	LED	TH	154	198	65

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
TLLG4401	Low-current green	LED	TH	154	198	65
TLLG5400	Low-current green	LED	TH	154	198	65
TLLG5401	Low-current green	LED	TH	154	198	65
TLLR4400	Low-current red	LED	TH	154	198	65
TLLR4401	Low-current red	LED	TH	154	198	65
TLLR5400	Low-current red	LED	TH	154	198	65
TLLR5401	Low-current red	LED	TH	154	198	65
TLLY4400	Low-current yellow	LED	TH	154	198	65
TLLY4401	Low-current yellow	LED	TH	154	198	65
TLLY5400	Low-current yellow	LED	TH	154	198	65
TLLY5401	Low-current yellow	LED	TH	154	198	65
TLMA3100	Low-current SMD yellow	LED	SMD	154	198	65
TLMB3100	SMD blue	LED	SMD	154	198	65
TLMC3100	Low-current SMD green	LED	SMD	154	198	65
TLMD3100	High-intensity SMD red	LED	SMD	154	198	65
TLME3100	High-intensity SMD yellow	LED	SMD	154	198	65
TLMF3100	High-intensity SMD orange	LED	SMD	154	198	65
TLMG2200	SMD green	LED	SMD	154	198	65
TLMG3100	SMD green	LED	SMD	154	198	65
TLMH3100	High-efficiency SMD red	LED	SMD	154	198	65
TLMO3100	SMD orange	LED	SMD	154	198	65
TLMP3100	SMD pure green	LED	SMD	154	198	65
TLMR2200	SMD red	LED	SMD	154	198	65
TLMT3100	Low-current SMD red	LED	SMD	154	198	65
TLMV3100	SMD bicolor	LED	SMD	154	198	65
TLMY2200	SMD yellow	LED	SMD	154	198	65
TLMY3100	SMD yellow	LED	SMD	154	198	65
TLPG5600	Side green	LED	TH	154	198	65
TLPH5600	Side hi red	LED	TH	154	198	65
TLPP5600	Side pure green	LED	TH	154	198	65
TLPR5600	Side red	LED	TH	154	198	65
TLPY5600	Side yellow	LED	TH	154	198	65
TLRG4420	Resistor green	LED	TH	154	198	65
TLRG4450	Resistor green	LED	TH	154	198	65
TLRG5420	Resistor green	LED	TH	154	198	65
TLRG5450	Resistor green	LED	TH	154	198	65
TLRH4420	Resistor hi-red	LED	TH	154	198	65
TLRH4450	Resistor hi-red	LED	TH	154	198	65
TLRH5420	Resistor hi-red	LED	TH	154	198	65
TLRH5450	Resistor hi-red	LED	TH	154	198	65
TLRO4420	Resistor orange	LED	TH	154	198	65
TLRP4400	Resistor pure green	LED	TH	154	198	65
TLRY4420	Resistor yellow	LED	TH	154	198	65
TLRY4450	Resistor yellow	LED	TH	154	198	65
TLRY5420	Resistor yellow	LED	TH	154	198	65
TLRY5450	Resistor yellow	LED	TH	154	198	65
TLSG2100	Symbol green	LED	TH	154	198	65
TLSG2101	Symbol green	LED	TH	154	198	65
TLSG5100	Symbol green	LED	TH	154	198	65
TLSG5101	Symbol green	LED	TH	154	198	65
TLSH2100	Symbol high-efficiency red	LED	TH	154	198	65
TLSH2101	Symbol high-efficiency red	LED	TH	154	198	65
TLSH5100	Symbol high-efficiency red	LED	TH	154	198	65
TLSH5101	Symbol high-efficiency red	LED	TH	154	198	65
TLSV5100	Symbol bicolor	LED	TH	154	198	65
TLSY2101	Symbol yellow	LED	TH	154	198	65
TLSY5101	Symbol yellow	LED	TH	154	198	65
TLUG2400	Mini green	LED	TH	154	198	65
TLUG2401	Mini green	LED	TH	154	198	65
TLUO2400	Mini orange	LED	TH	154	198	65
TLUO2401	Mini orange	LED	TH	154	198	65
TLUR2400	Mini red	LED	TH	154	198	65
TLUR2401	Mini red	LED	TH	154	198	65

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
TLUR4400	Mini red	LED	TH	154	198	65
TLUR4401	Mini red	LED	TH	154	198	65
TLUR5400	Mini red	LED	TH	154	198	65
TLUR5401	Mini red	LED	TH	154	198	65
TLUV5300	Mini bicolor	LED	TH	154	198	65
TLUY2400	Mini yellow	LED	TH	154	198	65
TLUY2401	Mini yellow	LED	TH	154	198	65
TLVD4200	Backlighting hi-red	LED	TH	154	198	65
TLVG4200	Backlighting green	LED	TH	154	198	65
TLVH4200	Backlighting hi-red	LED	TH	154	198	65
TLVP4200	Backlighting pure green	LED	TH	154	198	65
TLVS4200	Backlighting orange	LED	TH	154	198	65
TLVY4200	Backlighting yellow	LED	TH	154	198	65
TN0200T	N DMOS	N LP D	SOT23	4	11	2
TN0201L	N DMOS	N LP D	TO92	4	11	2
TN0201T	N DMOS	N LP D	SOT23	4	11	2
TN0401L	N DMOS	N LP D	TO92	4	11	2
TN0601L	N DMOS	P LP B	TO92	4	15	4
TN2010T	N DMOS	P LP B	SOT23	4	15	4
TN2410L	N DMOS	P LP B	TO92	4	15	4
TN2460L	N DMOS	N LP B	TO92	4	3	7
TN2460T	N DMOS	N LP B	SOT23	4	3	7
TN3012L	N DMOS	N LP D	TO92	4	11	2
TN3512L	N DMOS	N LP D	TO92	4	11	2
TN4012L	N DMOS	N LP D	TO92	4	11	2
TOIM3000	IrDA interface	UNI	PSOP	11	10	7
TOIM3232	IrDA interface	UNI	PSOP	11	10	7
TP0101T	P power MOS	P 5.9	SOT23	4	x	x
TP0202BT	P DMOS	P LP B	SOT23	4	15	4
TP0202T	P DMOS	P LP B	SOT23	4	15	4
TP0610L	P DMOS	P LP B	TO92	4	15	4
TP0610T	P DMOS	P LP B	SOT23	4	15	4
TP1220L	P DMOS	P LP B	TO92	4	15	4
TP2010L	P DMOS	P LP B	TO92	4	15	4
TP2020L	P DMOS	P LP B	TO92	4	15	4
TP2410L	P DMOS	P LP B	TO92	4	15	4
TSC251..	Super 8-bit microcontroller	SCMOS	PLCC, PQFP	x	x	x
TSC251..E	Super 8-bit microcontroller	SCMOSNV	PLCC, PQFP	x	x	x
TSC51...	8-bit microcontroller	SCMOS	PDIP, PLCC, PQFP	20	267	13
TSC701	RISC microcontroller	SCMOS2	PLCC, PQFP	x	x	x
TSHA4400	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA4401	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5200	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5201	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5202	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5203	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA520x	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5500	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5501	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5502	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA5503	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHA550x	IR emitter 875 nm	Emitter	TH	67	4100	960
TSHF5200	IR emitter 870 nm	Emitter	TH	67	4100	960
TSHF5400	IR emitter 870 nm	Emitter	TH	67	4100	960
TSIL5200	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIL5400	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIL6400	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIP4400	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIP4401	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIP5200	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIP5201	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIP7600	IR emitter 950 nm	Emitter	TH	67	4100	960
TSIP7601	IR emitter 950 nm	Emitter	TH	67	4100	960

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
TSML3700	SMD IR emitter 950 nm	Emitter	SMD	67	4100	960
TSMS2100	SMD IR emitter 950 nm	Emitter	SMD	67	4100	960
TSMS3700	SMD IR emitter 950 nm	Emitter	SMD	67	4100	960
TSSF4500	IR emitter 870 nm	Emitter	TH	67	4100	960
TSSP4400	IR emitter 950 nm	Emitter	TH	67	4100	960
TSSS2600	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTA7100	IR emitter 875 nm	Emitter	TH	67	4100	960
TSTA7300	IR emitter 875 nm	Emitter	TH	67	4100	960
TSTA7500	IR emitter 875 nm	Emitter	TH	67	4100	960
TSTS7100	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7101	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7102	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7103	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7300	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7301	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7302	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7303	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7500	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7501	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7502	IR emitter 950 nm	Emitter	TH	67	4100	960
TSTS7503	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS4300	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS4400	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS5200	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS5201	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS5202	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS5400	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS5401	IR emitter 950 nm	Emitter	TH	67	4100	960
TSUS5402	IR emitter 950 nm	Emitter	TH	67	4100	960
TZM	Zener	Diode	SOD80	8	40	5
TZM5221B...	Bipolar	Diode	SOD80	8	40	5
U2008B	Phase control	STD	PDIP, PSOP	16	6	3
U2010B	Phase control	STD	PDIP, PSOP	16	6	3
U2042B	Direction indicator	STD	PDIP	16	6	3
U2043B	Direction indicator	STD	PDIP, PSOP	16	6	3
U2044B	Direction indicator	STD	PDIP, PSOP	16	6	3
U208B-A	Phase control	STD	PDIP	16	6	3
U209B-B	Phase control	STD	PDIP, PSOP	16	6	3
U2100B	Zero crossing	I^2L	PDIP, PSOP	20	13	6
U2101B	Zero crossing	I^2L	PDIP, PSOP	20	13	6
U2102B	Zero crossing	I^2L	PDIP, PSOP	20	13	6
U211B2-B	Phase control	STD	PDIP	16	6	3
U211B3-FP	Phase control	STD	PSOP	16	6	3
U217B	Zero crossing	STD	PDIP, PSOP	16	6	3
U2203B	Video/image processing	UHF	PDIP	3	x	13
U221B	Video/image processing	UHF	PDIP	3	x	13
U2300B-FL	Mixer	UHF	PSOP	3	x	13
U2309B-FL	Mixer	UHF	PSOP, PSSOP	3	x	13
U2320B-FL	Mixer	UHF	PSOP	3	x	13
U2321B-FP	Mixer	UHF	PSOP	3	x	13
U2329B-FL	Mixer	UHF	PSOP	3	x	13
U2350B-FP	Phase control	STD	PSOP	16	6	3
U2352B	Phase control	I^2L	PDIP, PSOP	20	13	6
U2400B	Battery charger	I^2L	PDIP, PSOP	20	13	6
U2402B-A	Battery charger	I^2L	PDIP, PSOP	20	13	6
U2403B	Battery charger	I^2L	PDIP, PSOP	20	13	6
U2405B	Battery charger	I^2L	PDIP, PSOP	20	13	6
U2407B	Battery charger	I^2L	PDIP, PSOP	20	13	6
U2480B	Lamp outage monitoring	I^2L	PDIP	20	13	6
U2481B-FL	Lamp outage monitoring	I^2L	PSOP	20	13	6
U2482B-FL	Lamp outage monitoring	I^2L	PSOP	20	13	6
U2510B-M	Receiver	STD	PDIP	16	6	3
U2514B	Receiver	UNI	PSOP	11	10	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
U2532B-FP	IrDA transmitter receiver	UNI	PSOP	11	10	7
U2535B-FP	IR transmitter/receiver	UNI	PSOP	11	10	7
U2538B-FP	IR transmitter/receiver	UNI	PSOP	11	10	7
U264“x”B	Wiper wash control	I^2L	PDIP, PSOP	20	13	6
U2740B-FP	RF transmitter/receiver	UHF	PSOP	3	x	13
U2752M-A	Receiver	CMOS	PSOP	x	x	x
U2753B-B	Receiver	CMOS	PSSOP	x	x	x
U2754B-B	Receiver	CMOS	PSSOP	x	x	x
U2755B-B	Receiver	CMOS	PSSOP	x	x	x
U2757M-B	Receiver	CMOS	PQFP	x	x	x
U2758M-A	Receiver	CMOS	PQFP	x	x	x
U2760B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2781B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2782B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2783B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2784B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2790B-FP	Wireless communication	UHF	PSOP	3	x	13
U2791B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2793B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2794B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2795B-FP	Wireless communication	UHF	PSOP	3	x	13
U2796B-FP	Wireless communication	UHF	PSOP	3	x	13
U2797B-FS	Wireless communication	UHF	PSSOP	3	x	13
U2829B	Video / sound IF	UNI	PDIP	11	10	7
U2840B	Video / sound IF	UNI	PDIP	11	10	7
U2860B	Video / sound IF	UNI	PDIP	11	10	7
U2891B-FS	Wireless communication	UHF	PSSOP	3	x	13
U290	N JFET	Unipolar	TO18	5	7	7
U291	N JFET	Unipolar	TO18	5	7	7
U309	N JFET	Unipolar	TO18	5	7	7
U309B	N JFET	Unipolar	TO52	5	7	7
U310	N JFET	Unipolar	TO18	5	7	7
U3500BM	Wireless communication	CMOS	PSOP	9	x	x
U3550BM	Wireless communication	CMOS	PSOP	9	x	x
U3660M	Chroma-video	SAJI6	PDIP	9	44	1
U3661M	Chroma-video	SCMOS	PDIP, PSOP	9	74	2
U3750BM-CP	Telephone	CMOS	PLCC	9	x	x
U3760MB	Telephone	CMOS	PDIP, PSSOP	9	x	x
U3770M	Wireless communication	CMOS	PSOP	9	x	x
U3800BM-CP	Telephone	CMOS	PLCC	9	x	x
U3810BM	Telephone	CMOS	PSSOP	9	x	x
U401	Dual N JFET	Unipolar	TO71	5	58	10
U402	Dual N JFET	Unipolar	TO71	5	58	10
U4030B	Telephone	UNI	PDIP	11	10	7
U4030B-FL	Telephone	UNI	PSOP	11	10	7
U404	Dual N JFET	Unipolar	TO71	5	58	10
U405	Dual N JFET	Unipolar	TO71	5	58	10
U4050B	Telephone	UNI	PDIP, PSOP	11	10	7
U4056B1	Telephone	STD	PDIP	16	6	3
U406	Dual N JFET	Unipolar	TO71	5	58	10
U4062B	Audio receiver	UHF	PDIP, PSSOP	3	x	13
U4065B-FL	Audio receiver	UHF	PSOP	3	x	13
U4072B	Telephone	I^2L	PDIP	20	13	6
U4074B-FP	Telephone	I^2L	PSOP	20	13	6
U4076B	Telephone	I^2L	PDIP, PSOP	20	13	6
U4078B-FP	Telephone	I^2L	PSOP	20	13	6
U4080B	Telephone	UNI	PDIP	11	10	7
U4082B	Telephone	UNI	PDIP, PSOP	11	10	7
U4083B	Telephone	STD	PDIP	16	6	3
U4083B-FP	Telephone	STD	PSOP	16	6	3
U4084B-FL	Telephone	UNI	PSOP	11	10	7
U4087B-FP	Telephone	UNI	PSOP	11	10	7
U4090B-FN	Telephone	UNI	PSSOP	11	10	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
U4092B-SD	Telephone	UNI	PDIP	11	10	7
U421	Dual N JFET	Unipolar	TO78	5	58	10
U4221B-FP	Clock receiver	UNI	PSOP	11	10	7
U4223B-FL	Clock receiver	UNI	PSOP	11	10	7
U4224B-FL	Clock receiver	UNI	PSOP	11	10	7
U4226B-FS	Clock receiver	UNI	PSSOP	11	10	7
U423	Dual N JFET	Unipolar	TO78	5	58	10
U4240B	Audio receiver	UNI	PDIP, PSSOP	11	10	7
U426B-FP	IR transmitter/receiver	UNI	PSOP	11	10	7
U4270B	FM-IF amplifier	STD	PDIP, PSSOP	16	6	3
U4275B-FL	IF	UNI	PSOP	11	10	7
U4276B-FP	IF	UNI	PSOP	11	10	7
U4280BM	AM/FM PLL	CMOS	PDIP, PSOP	9	x	x
U4283BM	AM/FM PLL	CMOS	PDIP	9	x	x
U4283BM-FS	AM/FM PLL	CMOS	PSSOP	9	x	x
U4285BM-FP	AM/FM PLL	CMOS	PSOP, PSSOP	9	x	x
U4286BM-FP	AM/FM PLL	CMOS	PSOP	9	x	x
U4288BM	AM/FM PLL	CMOS	PSOP	9	x	x
U430	Dual N JFET	Unipolar	TO78	5	58	10
U431	Dual N JFET	Unipolar	TO78	5	58	10
U4311B	RF transmitter/receiver	UNI	PDIP, PSOP	11	10	7
U4313B	RF transmitter/receiver	UNI	PDIP, PSOP	11	10	7
U4314B-FP	RF transmitter/receiver	UNI	PSOP	11	10	7
U440	Dual N JFET	Unipolar	TO71	5	58	10
U441	Dual N JFET	Unipolar	TO71	5	58	10
U4454B	Video / sound IF	UNI	PDIP	11	10	7
U4459B	Video / sound IF	UNI	PDIP	11	10	7
U4460BG	Video / sound IF	UNI	PDIP	11	10	7
U4462B	Video / sound IF	UNI	PDIP, PSOP	11	10	7
U4479B	Video / sound IF	UNI	PSOP	11	10	7
U4490B	Video / sound IF	UNI	PDIP	11	10	7
U4790B	Lamp outage monitoring	STD	PDIP	16	6	3
U4791B	Lamp outage monitoring	STD	PDIP, PSOP	16	6	3
U4793B	Lamp outage monitoring	STD	PDIP	16	6	3
U479B	Lamp outage monitoring	STD	PDIP, PSOP	16	6	3
U490B	Phase control	STD	PDIP	16	6	3
U4930B	Chroma-video	UNI	PDIP	11	10	7
U5020M-FP	Miscellaneous	CMOS	PSOP	9	x	x
U5021M-FP	Miscellaneous	CMOS	PSOP	9	x	x
U6024BS-FP	Wireless communication	UHF	PSOP	3	x	13
U6028BS-FP	Wireless communication	UHF	PSOP	3	x	13
U6032B	Miscellaneous	I^2L	PDIP	20	13	6
U6043B	Direction indicator	STD	PDIP, PSOP	16	6	3
U6044B	Long-time timer	I^2L	PDIP	20	13	6
U6046B	Long-time timer	I^2L	PDIP, PSOP	20	13	6
U6047B	Long-time timer	I^2L	PDIP, PSOP	20	13	6
U6049B	Long-time timer	I^2L	PDIP, PSOP	20	13	6
U6050B-FL	Multiplex/network/diagnosis	I^2L	PSOP	20	13	6
U6052B	Multiplex/network/diagnosis	I^2L	PDIP, PSOP	20	13	6
U6056B-FL	Multiplex/network/diagnosis	I^2L	PSOP	20	13	6
U6081B	Dashboard dimmer	STD	PDIP	16	6	3
U6083B	Dashboard dimmer	STD	PDIP	16	6	3
U6084B-FL	Dashboard dimmer	STD	PSOP	16	6	3
U6206B-FP	PLL tuning	UHF	PSOP	3	x	13
U6207B-FP	PLL tuning	UHF	PSOP	3	x	13
U6223B-FP	PLL	UHF	PSOP	3	x	13
U6224B-FP	PLL	UHF	PSOP	3	x	13
U6225B-FP	PLL	UHF	PSOP	3	x	13
U6359B-FL	PLL tuning	UHF	PSOP	3	x	13
U642B	Wiper wash control	STD	PDIP, PSOP	16	6	3
U6432B-FP	Direction indicator	STD	PSOP	16	6	3
U6433B-FP	Direction indicator	STD	PSOP	16	6	3
U643B	Direction indicator	STD	PDIP, PSOP	16	6	3

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
U644B	Direction indicator	STD	PDIP, PSOP	16	6	3
U6791B-FP	Data communication	UHF	PSOP	3	x	13
U6792B-FP	Data communication	UHF	PSOP	3	x	13
U6795B-FP	Data communication	UHF	PSOP	3	x	13
U6803B-FP	Miscellaneous	STD	PSOP	16	6	3
U6805B-FP	Miscellaneous	STD	PSOP	16	6	3
U6806B-FL	Miscellaneous	STD	PSOP	16	6	3
U690B	Wiper wash control	I^2L	PDIP	20	13	6
U829B	Video / sound IF	STD	PDIP	16	6	3
U832BS-FP	Wireless communication	UHF	PSOP	3	x	13
U834B-FP	High-speed prescaler	UHF	PSOP	3	x	13
U840B	Wiper wash control	I^2L	PDIP, PSOP	20	13	6
U842B-FP	Wiper wash control	I^2L	PSOP	20	13	6
U846B	Wiper wash control	I^2L	PDIP	20	13	6
U893BSE	High-speed prescaler	UHF	PDIP, PSOP	3	x	13
UAA145	Phase control	STD	PDIP	16	6	3
UC0.4K	800 gates ULC	SCMOS	As required	5	85	4
UC0.8K	401 gates ULC	SCMOS	As required	5	126	6
UC02K	2-K gates ULC	SCMOS	As required	5	222	11
UC05K	5-K gates ULC	SCMOS	As required	5	398	19
UC08K	8-K gates ULC	SCMOS	As required	5	555	27
UC10K	10-K gates ULC	SCMOS	As required	5	712	35
UC12K	12-K gates ULC	SCMOS	As required	5	695	34
UC29K	29-K gates ULC	SCMOS	As required	5	1070	52
UC50K	50-K gates ULC	SCMOS	As required	5	1403	68
UD0250	250 gates ULC	RAM2	As required	5	643	23
UD0265	265 gates ULC	RAM2	As required	5	44	2
UD0900	900 gates ULC	RAM2	As required	5	140	5
UD1000	1-K gates ULC	RAM2	As required	5	151	5
UD1400	1.4-K gates ULC	RAM2	As required	5	256	9
UD1600	1.6-K gates ULC	RAM2	As required	5	218	8
UD2700	2.7-K gates ULC	RAM2	As required	5	335	12
UG1014	14-K gates ULC	SCMOS2	As required	5	420	5
UG1052	52-K gates ULC	SCMOS2	As required	5	1035	12
UG1070	70-K gates ULC	SCMOS2	As required	5	1296	15
UG1120	120-K gates ULC	SCMOS2	As required	5	1689	19
V10072	N power MOS	N LP B	TO52	4	3	7
V10099Q	N power MOS	N LP B	SDIP	4	3	7
V10116	N power MOS	N LP B	T066	4	3	7
V10208	N power MOS	N LP B	TO237	4	3	7
V10218	P power MOS	P 1.6	T039	4	6	1
V10259	N power MOS	N LP B	T092	4	3	7
V10422	N power MOS	N LP B	T052	4	3	7
V10427	N power MOS	N LP B	TO220	4	3	7
V10442	N power MOS	N LP B	TO61	4	3	7
V10449	N power MOS	N LP B	TO61	4	3	7
V1048801	N power MOS	N LP B	TO61	4	3	7
V10511	N power MOS	N LP B	TO52	4	3	7
V10534	N power MOS	N LP B	TO66	4	3	7
V10702	N power MOS	N LP B	TO237	4	3	7
V10822	N power MOS	N LP B	TO237	4	3	7
V10977	P power MOS	P LP B	TO39	4	15	4
V11326	N power MOS	N LP B	SDIP	4	3	7
V11370	N power MOS	N LP B	TO61	4	3	7
V11388	N power MOS	N LP B	TO92	4	3	7
V11389	N power MOS	N LP D	TO92	4	11	2
V11422	N power MOS	N LP B	TO61	4	3	7
V11553	N power MOS	N LP B	TO61	4	3	7
V11713	N power MOS	N LP B	TO92	4	3	7
V11809	N power MOS	N LP B	TO237	4	3	7
V11883	N power MOS	N LP B	SDIP	4	3	7
V11884	N power MOS	N LP B	TO66	4	3	7
V11899	N power MOS	N LP B	Module	4	3	7

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
V11990	N power MOS	N LP B	TO61	4	3	7
V12103	N power MOS	N LP B	TO66	4	3	7
V12123	N power MOS	N LP B	SDIP	4	3	7
V12284	P DMOS	P LP D	TO92	4	26	4.4
V12391	N power MOS	N LP B	TO39	4	3	7
V12645	N power MOS	N LP B	TO254	4	3	7
V12713	N power MOS	N LP B	TO 39	4	3	7
V12788	N power MOS	N LP B	TO 39	4	3	7
V12882	N power MOS	N LP B	TO66	4	3	7
V12907	N power MOS	N LP B	TO254	4	3	7
V13100	N power MOS	N LP B	TO66	4	3	7
V13108	N power MOS	N LP B	TO61	4	3	7
V13142	N power MOS	N LP B	TO3	4	3	7
V13308	N power MOS	N 2.5	TO220	4	2	2
V13441	N power MOS	N 2.5	TO220	4	2	2
V13458	P power MOS	P B	TO257	4	35	6
V13459	N power MOS	N 1.6	TO257	4	1	2
V13463	N power MOS	N LP B	TO254	4	3	7
V13479	P power MOS	P B	TO39	4	35	6
V30005	N power MOS	N 1.6	TO220	4	1	2
V30009	N power MOS	N 2.5	TO252	4	2	2
V30010	N power MOS	N 2.5	TO251	4	2	2
V30016	N power MOS	N 2.5	TO220	4	2	2
V30017	N power MOS	N LP D	PSOP	4	11	2
V30020	N power MOS	N LP D	TO251	4	11	2
V30022	P power MOS	P 2.5	TO251	4	4	1
V30023	N power MOS	N 1.6	TO252	4	1	2
V30025	P power MOS	P 1.6	PSOP	4	6	1
V30027	N power MOS	N 1.6	TO263	4	1	2
V30028	N power MOS	N 2.5	TO252	4	2	2
V30029	N power MOS	N 1.6	TO220	4	1	2
V30035	N power MOS	N 2.5	TO247	4	2	2
V30036	N power MOS	N 2.5	TO263	4	2	2
V30037	N power MOS	N 2.5	TO263	4	2	2
V30047	N power MOS	N 2.5	PSOP	4	2	2
V30058	N power MOS	N 2.5	PSOP	4	2	2
V30059	P power MOS	P 2.5	PSOP	4	4	1
V30061	N power MOS	N 12.0	PSOP	4	5	0.8
V30085	N power MOS	N 5.9	PTSSOP	4	x	x
V30086	N power MOS	N 5.9	PTSSOP	4	x	x
V30087	P power MOS	P 5.9	PTSSOP	4	x	x
V30088	P power MOS	P 5.9	PTSSOP	4	x	x
V30089	N power MOS	N 5.9	PTSSOP	4	x	x
VA1051	N power MOS	N LP B	TO39	4	3	7
VA1138	N power MOS	N LP B	TO237	4	3	7
VCR2N	J-FET VCR	Unipolar	TO72	5	7	7
VCR4N	J-FET VCR	Unipolar	TO72	5	7	7
VCR7N	J-FET VCR	Unipolar	TO72	5	7	7
VE0007	N DMOS	N LP D	TO220	4	11	2
VN0300	N DMOS	N LP B	TO92, TO237	4	3	7
VN0605L	N DMOS	N LP B	TO92	4	3	7
VN0605T	N DMOS	N LP B	SOT23	4	3	7
VN0606	N DMOS	N LP B	TO92, TO237	4	3	7
VN0610L	N DMOS	N LP B	TO92	4	3	7
VN0808	N DMOS	N LP B	TO92, TO237	4	3	7
VN10K/L	N DMOS	N LP B	TO52, TO237	4	3	7
VN1206L	N DMOS	N LP B	TO52, TO92, TO237	4	3	7
VN1210M	N DMOS	N LP B	TO237	4	3	7
VN2010L	N DMOS	N LP B	TO92	4	3	7
VN2222L	N DMOS	N LP B	TO92, TO237	4	3	7
VN2406	N DMOS	N LP D	TO92, TO220	4	11	2
VN2410	N DMOS	N LP D	TO92, TO237	4	11	2
VN3515L	N DMOS	N LP D	TO92	4	11	2

Type	Description	Technology	Package	AOQ (ppm)	EFR (ppm)	LFR (FIT)
VN4012L	N DMOS	N LP D	TO92	4	11	2
VN46AFD	N DMOS	N LP B	TO220	4	3	7
VN50300	N DMOS	N LP B	TO92, SOT23	4	3	7
VN66AFD	N DMOS	N LP B	TO220	4	3	7
VN88AFD	N DMOS	N LP B	TO220	4	3	7
VP0300	P DMOS	P 1.6	TO92, TO39, TO237	4	6	1
VP0610L	P DMOS	P LP B	TO92, SOT23	4	15	4
VP0808	P DMOS	P LP B	TO92, TO39, TO237	4	15	4
VP1008	P DMOS	P LP B	TO92, TO39, TO237	4	15	4
VP2020L	P DMOS	P LP B	TO92	4	15	4
VP2410L	P DMOS	P LP B	TO92	4	15	4
VQ1000J	Quad N DMOS	N LP B	PDIP, SDIP	4	3	7
VQ1001J	Quad N DMOS	N LP B	PDIP, SDIP	4	3	7
VQ1001P	Quad N DMOS	N LP B	PDIP, SDIP	4	3	7
VQ1004J	Quad N DMOS	N LP B	PDIP, SDIP	4	3	7
VQ1004P	Quad N DMOS	N LP B	PDIP, SDIP	4	3	7
VQ1006P	Quad N DMOS	N LP B	PDIP, SDIP	4	3	7
VQ2001J	Quad P DMOS	P 1.6	PDIP, SDIP	4	6	1
VQ2001P	Quad P DMOS	P 1.6	PDIP, SDIP	4	6	1
VQ2004J	Quad P DMOS	P LP B	PDIP, SDIP	4	15	4
VQ3001J	Quad N and P DMOS	N LP B	PDIP, SDIP	4	3	7
VQ3001P	Quad N and P DMOS	N LP B	PDIP, SDIP	4	3	7
VQ500301	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5015	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5026	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5032	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5060	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5064	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5090	Quad N and P DMOS	N LP B	SDIP	4	3	7
VQ5091	Quad N and P DMOS	N LP B	SDIP	4	3	7
VT0075	N DMOS	N LP B	TO39	4	3	7
WD481	N JFET	Unipolar	TO78	5	7	7
WD499	Dual N JFET	Unipolar	TO71	5	58	10
WD514	N JFET	Unipolar	TO78	5	7	7
WM29601	N JFET	Unipolar	TO257	5	7	7
WM29801	N JFET	Unipolar	TO257	5	7	7
WM29901	N JFET	Unipolar	TO257	5	7	7
WM30001	N JFET	Unipolar	TO257	5	7	7
WM385	N JFET	Unipolar	TO237	5	7	7
WM389	N JFET	Unipolar	PDIP	5	7	7
WM430	N JFET	Unipolar	TO52	5	7	7
WM433	N JFET	Unipolar	TO220	5	7	7
WM434	N JFET	Unipolar	TO237	5	7	7
WN1087	N JFET	Unipolar	TO92	5	7	7
WN1090	N JFET	Unipolar	TO72	5	7	7
WN1125	N JFET	Unipolar	TO92	5	7	7
WN1142	N JFET	Unipolar	TO92	5	7	7
WN1158	N JFET	Unipolar	TO92	5	7	7
WN1165	N JFET	Unipolar	TO92	5	7	7
WN1170	N JFET	Unipolar	TO92	5	7	7
WN934	N JFET	Unipolar	TO18	5	7	7

x = There is insufficient data on these products. Data will be available for 1997.