



DATA SHEET

1N4729A~1N4764A

GLASS PASSIVATED JUNCTION SILICON ZENER DIODE

| | | | |
|----------------|-------------------------|--------------|------------------|
| VOLTAGE | 3.6 to 100 Volts | POWER | 1.0 Watts |
|----------------|-------------------------|--------------|------------------|

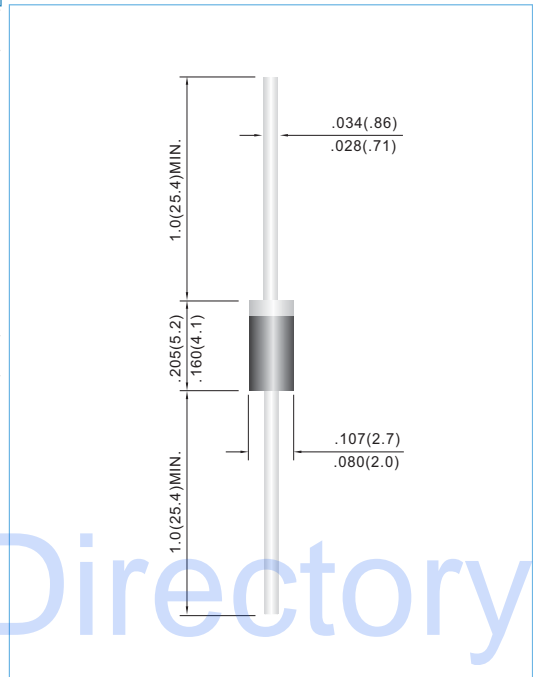
| | |
|--------------|----------------|
| DO-41 | Unit: inch(mm) |
|--------------|----------------|

FEATURES

- Low profile package
- Built-in strain relief
- Low inductance
- High temperature soldering : 260°C /10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Pb free product are available : 99% Sn above can meet RoHS environment substance diective request

MECHANICAL DATA

- Case: Molded plastic DO-41
- Epoxy:UL 94V-O rate flame retardant
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes positive end
- Mounting position:Any
- Weight: 0.012 ounce, 0.3 gram
- Ordering information :
Suffix : " -P " to order Molded plastic Package



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | Value | Units |
|---|-----------|-------------|------------------|
| Power Dissipation at $T_{amb} = 25^\circ\text{C}$ | P_{TOT} | 1* | W |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

*Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

| Parameter | Symbol | Min. | Typ. | Max. | Units |
|--|-----------|------|------|------|--------------|
| Thermal Resistance Junction to Ambient Air | R_{thA} | — | — | 170* | K/W |
| Forward Voltage at $I_F = 200\text{mA}$ | V_F | — | — | 1.2 | V |

*Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

Note :

This outline drawing is model plastics.
Its appearance size same as glass.



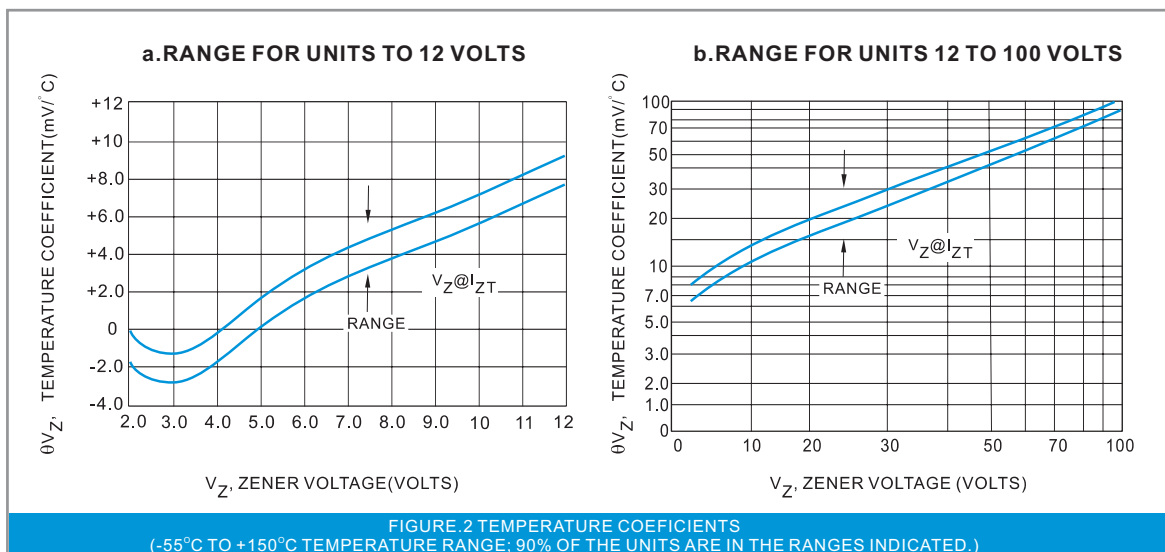
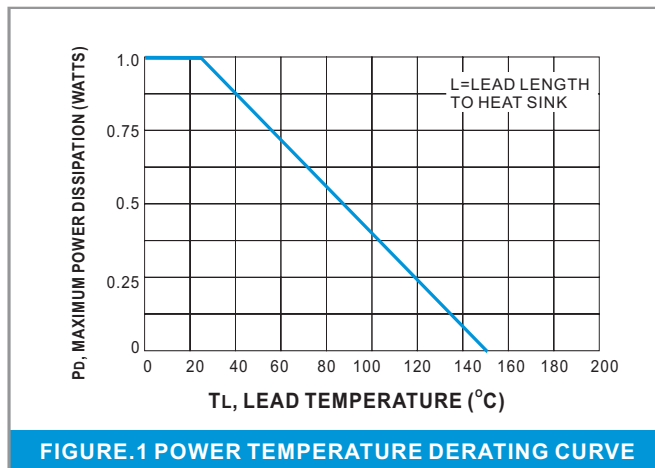
| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Maximum Leakage Current | | Marking Code | Package |
|-----------------------|-----------------------|--------|--------|----------------------|-------|-----------|------|-------------------------|-------|--------------|---------|
| | Vz @ IzT | | | ZzT @ IzT | | Zzk @ Izk | | IR @ VR | | | |
| | Nom. V | Min. V | Max. V | Ω | mA | Ω | mA | μA | V | | |
| 1.0 Watt Zener Diodes | | | | | | | | | | | |
| 1N4729A | 3.6 | 3.42 | 3.78 | 10 | 69.00 | 400 | 1.0 | 100.00 | 1.00 | 1N4729A | DO-41 |
| 1N4730A | 3.9 | 3.71 | 4.10 | 9.0 | 64.00 | 400 | 1.0 | 50.00 | 1.00 | 1N4730A | DO-41 |
| 1N4731A | 4.3 | 4.09 | 4.52 | 9.0 | 58.00 | 400 | 1.0 | 10.00 | 1.00 | 1N4731A | DO-41 |
| 1N4732A | 4.7 | 4.47 | 4.94 | 8.0 | 53.00 | 500 | 1.0 | 10.00 | 1.00 | 1N4732A | DO-41 |
| 1N4733A | 5.1 | 4.85 | 5.36 | 7.0 | 49.00 | 550 | 1.0 | 10.00 | 1.00 | 1N4733A | DO-41 |
| 1N4734A | 5.6 | 5.32 | 5.88 | 5.0 | 45.00 | 600 | 1.0 | 10.00 | 2.00 | 1N4734A | DO-41 |
| 1N4735A | 6.2 | 5.89 | 6.51 | 2.0 | 41.00 | 700 | 1.0 | 10.00 | 3.00 | 1N4735A | DO-41 |
| 1N4736A | 6.8 | 6.46 | 7.14 | 3.5 | 37.00 | 700 | 1.0 | 5.00 | 4.00 | 1N4736A | DO-41 |
| 1N4737A | 7.5 | 7.13 | 7.88 | 4.0 | 34.00 | 700 | 0.5 | 5.00 | 5.00 | 1N4737A | DO-41 |
| 1N4738A | 8.2 | 7.79 | 8.61 | 4.5 | 31.00 | 700 | 0.5 | 5.00 | 6.00 | 1N4738A | DO-41 |
| 1N4739A | 9.1 | 8.65 | 9.56 | 5.0 | 28.00 | 700 | 0.5 | 0.50 | 7.00 | 1N4739A | DO-41 |
| 1N4740A | 10.0 | 9.50 | 10.50 | 7.0 | 25.00 | 700 | 0.25 | 0.50 | 7.60 | 1N4740A | DO-41 |
| 1N4741A | 11.0 | 10.45 | 11.55 | 8.0 | 23.00 | 700 | 0.25 | 0.10 | 8.40 | 1N4741A | DO-41 |
| 1N4742A | 12.0 | 11.40 | 12.60 | 9.0 | 21.00 | 700 | 0.25 | 0.10 | 9.10 | 1N4742A | DO-41 |
| 1N4743A | 13.0 | 12.35 | 13.65 | 10 | 19.00 | 700 | 0.25 | 0.10 | 9.90 | 1N4743A | DO-41 |
| 1N4744A | 15.0 | 14.25 | 15.75 | 14 | 17.00 | 700 | 0.25 | 0.10 | 11.40 | 1N4744A | DO-41 |
| 1N4745A | 16.0 | 15.20 | 16.80 | 16 | 15.50 | 700 | 0.25 | 0.10 | 12.20 | 1N4745A | DO-41 |
| 1N4746A | 18.0 | 17.10 | 18.90 | 20 | 14.00 | 750 | 0.25 | 0.10 | 13.70 | 1N4746A | DO-41 |
| 1N4747A | 20.0 | 19.00 | 21.00 | 22 | 12.50 | 750 | 0.25 | 0.10 | 15.20 | 1N4747A | DO-41 |
| 1N4748A | 22.0 | 20.90 | 23.10 | 23 | 11.50 | 750 | 0.25 | 0.10 | 16.70 | 1N4748A | DO-41 |
| 1N4749A | 24.0 | 22.80 | 25.20 | 25 | 10.50 | 750 | 0.25 | 0.10 | 18.20 | 1N4749A | DO-41 |
| 1N4750A | 27.0 | 25.65 | 28.35 | 35 | 9.50 | 750 | 0.25 | 0.10 | 20.60 | 1N4750A | DO-41 |
| 1N4751A | 30.0 | 28.50 | 31.50 | 40 | 8.50 | 1000 | 0.25 | 0.10 | 22.80 | 1N4751A | DO-41 |
| 1N4752A | 33.0 | 31.35 | 34.65 | 45 | 7.50 | 1000 | 0.25 | 0.10 | 25.10 | 1N4752A | DO-41 |
| 1N4753A | 36.0 | 34.20 | 37.80 | 50 | 7.00 | 1000 | 0.25 | 0.10 | 27.40 | 1N4753A | DO-41 |
| 1N4754A | 39.0 | 37.05 | 40.95 | 60 | 6.50 | 1000 | 0.25 | 0.10 | 29.70 | 1N4754A | DO-41 |
| 1N4755A | 43.0 | 40.85 | 45.15 | 70 | 6.00 | 1500 | 0.25 | 0.10 | 32.70 | 1N4755A | DO-41 |
| 1N4756A | 47.0 | 44.65 | 49.35 | 80 | 5.50 | 1500 | 0.25 | 0.10 | 35.80 | 1N4756A | DO-41 |
| 1N4757A | 51.0 | 48.45 | 53.55 | 95 | 5.00 | 1500 | 0.25 | 0.10 | 38.80 | 1N4757A | DO-41 |
| 1N4758A | 56.0 | 53.20 | 58.80 | 110 | 4.50 | 2000 | 0.25 | 0.10 | 42.60 | 1N4758A | DO-41 |
| 1N4759A | 62.0 | 58.90 | 65.10 | 125 | 4.00 | 2000 | 0.25 | 0.10 | 47.10 | 1N4759A | DO-41 |
| 1N4760A | 68.0 | 64.60 | 71.40 | 150 | 3.70 | 2000 | 0.25 | 0.10 | 51.70 | 1N4760A | DO-41 |
| 1N4761A | 75.0 | 71.25 | 78.75 | 175 | 3.30 | 2000 | 0.25 | 0.10 | 56.00 | 1N4761A | DO-41 |
| 1N4762A | 82.0 | 77.90 | 86.10 | 200 | 3.00 | 3000 | 0.25 | 0.10 | 62.20 | 1N4762A | DO-41 |
| 1N4763A | 91.0 | 86.45 | 95.55 | 250 | 2.80 | 3000 | 0.25 | 0.10 | 69.20 | 1N4763A | DO-41 |
| 1N4764A | 100 | 95.00 | 105.00 | 350 | 2.50 | 3000 | 0.25 | 0.10 | 76.00 | 1N4764A | DO-41 |

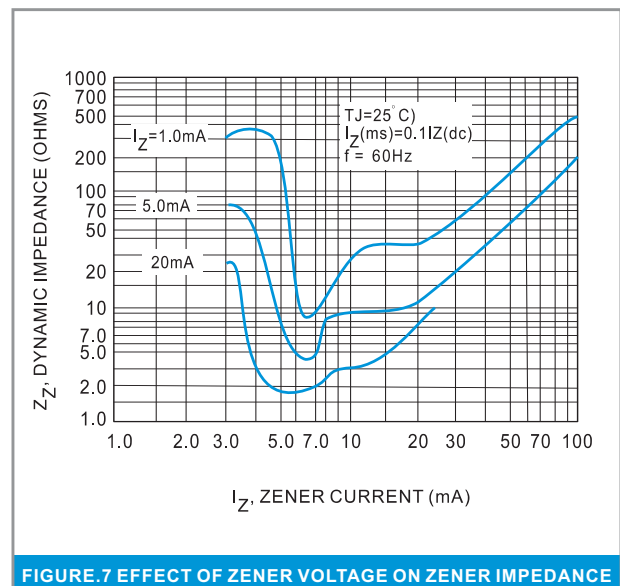
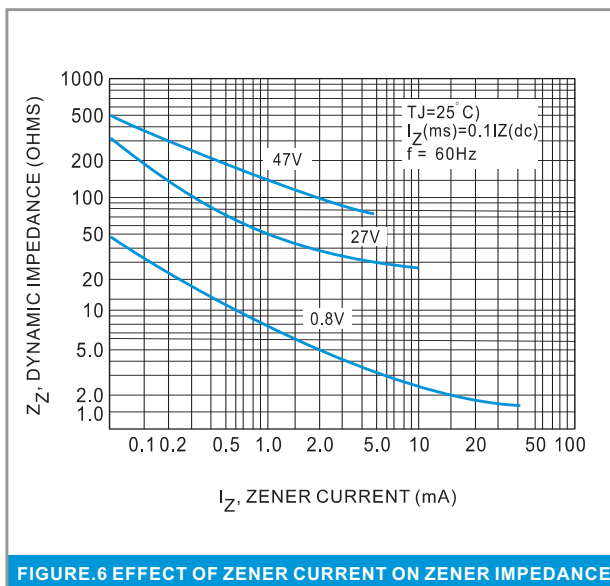
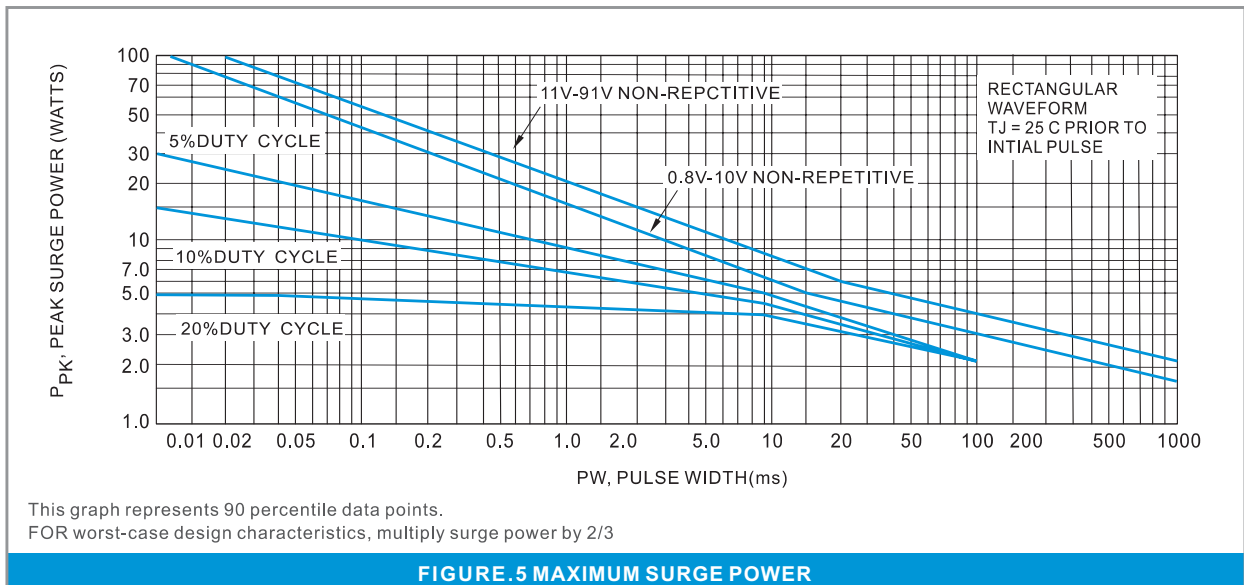
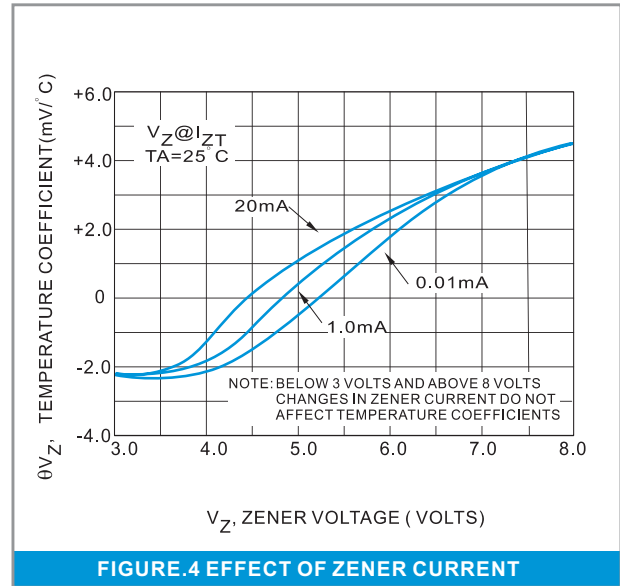
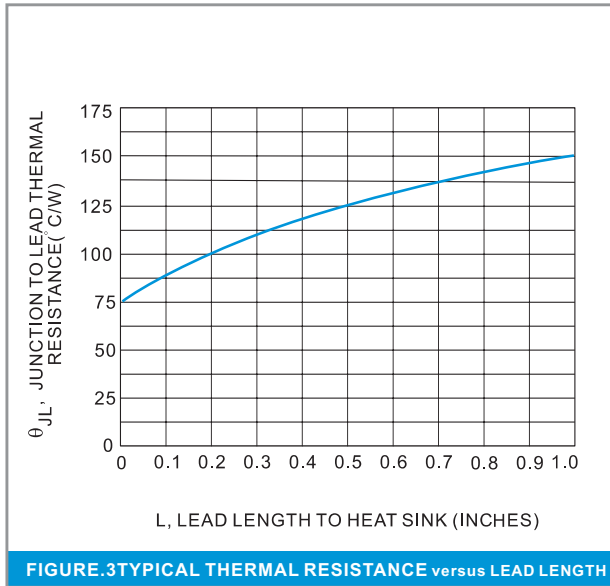


NOTE:

1. Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$
2. Specials Available Include:
 - A. Nominal zener voltages between the voltages shown and tighter voltage tolerances.
 - B. Matched sets.
3. Zener Voltage (V_Z) Measurement. Guarantees the zener voltage when measured at 90 seconds while maintaining the lead temperature (T_L) at $30^\circ\text{C} \pm 1^\circ\text{C}$, from the diode body.
4. Zener Impedance (Z_Z) Derivation. The zener impedance is derived from the 60 cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .
5. Surge Current (I_r) Non-Repetitive. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2

RATING AND CHARACTERISTICS CURVES





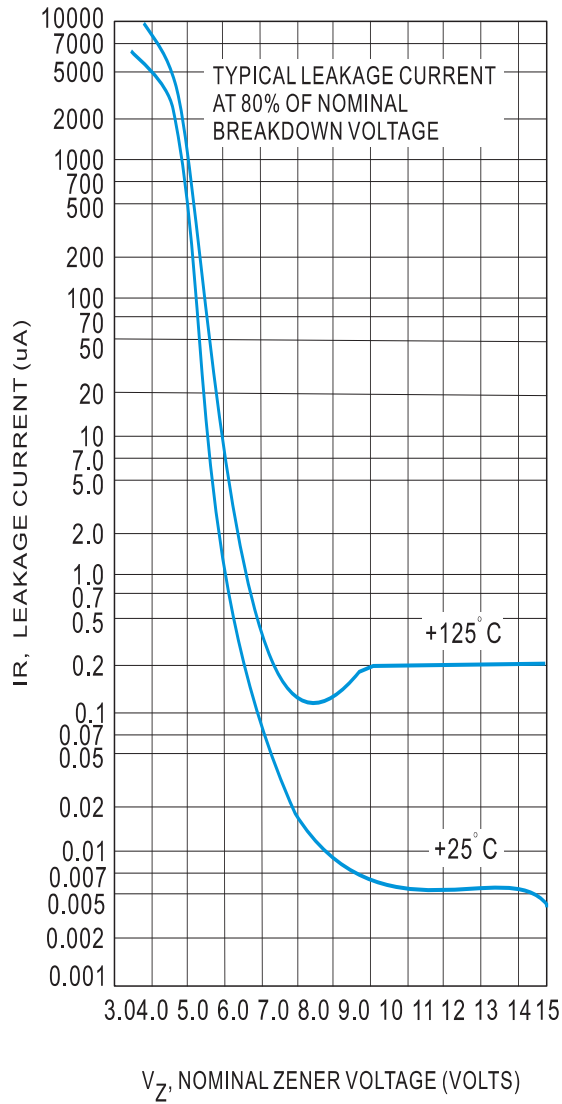


FIGURE.8 TYPICAL LEAKAGE CURRENT

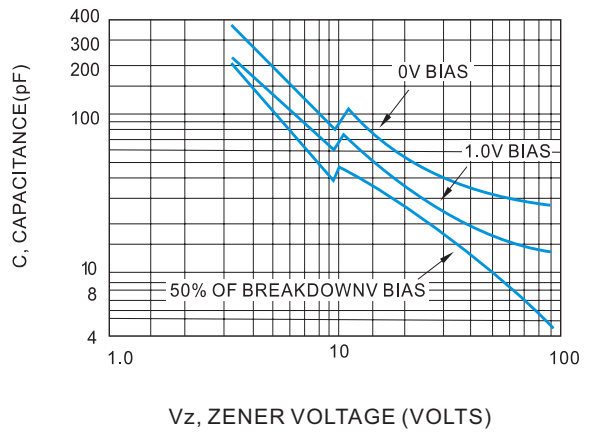


FIGURE.9 TYPICAL CAPACITANCE versus Vz

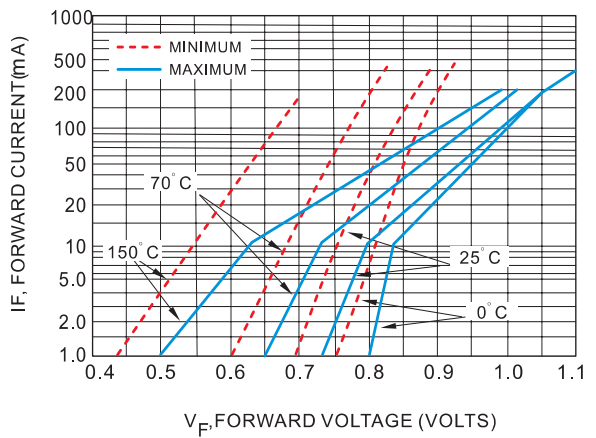


FIGURE.10 TYPICAL FORWARD CHARACTERISTICS