

- 1N6639US THRU 1N6641US AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/609
- SWITCHING DIODES
- NON-CAVITY GLASS PACKAGE
- METALLURGICALLY BONDED

1N6639US
1N6640US
1N6641US

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
Operating Current: 300 mA
Derating: 4.6 mA/°C Above $T_{EC} = +110^{\circ}\text{C}$
Surge Current: $I_{FSM} = 2.5\text{A}$, $P_W = 8.3\text{ms}$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| TYPES | V_{BRR} @ 10 μA | V_{RWM} | I_{R1} @ $T_A = +25^{\circ}\text{C}$ $V_R = V_{RWM}$ | I_{R2} @ $T_A = +150^{\circ}\text{C}$ $V_R = V_{RWM}$ | T_{FR} $I_F = 200\text{ mA}$ | T_{RR} $I_R = 10\text{ mA}$ $I_F = 10\text{ mA}$ $R_L = 100\ \Omega$ | C_T $V_R = 0$ |
|----------|---------------------------------|-----------|--|---|-----------------------------------|---|--------------------|
| | V(pk) | V(pk) | nA dc | μA dc | ns | ns | pF |
| 1N6639US | 100 | 75 | 100 | 100 | 10 | 4.0 | 2.5 |
| 1N6640US | 75 | 50 | 100 | 100 | 10 | 4.0 | 2.5 |
| 1N6641US | 75 | 50 | 100 | 100 | 10 | 5.0 | 3.0 |

FORWARD VOLTAGE:

| TYPES | V_F @ I_F | | mA (PULSED) |
|----------|---------------|------|----------------|
| | VdC | | |
| | MIN | MAX | |
| 1N6639US | - | 1.20 | 500 |
| 1N6640US | 0.54 | 0.62 | 1 |
| | 0.76 | 0.86 | 50 |
| | 0.82 | 0.92 | 100 |
| | 0.87 | 1.00 | 200 |
| 1N6641US | - | 1.10 | 200 |

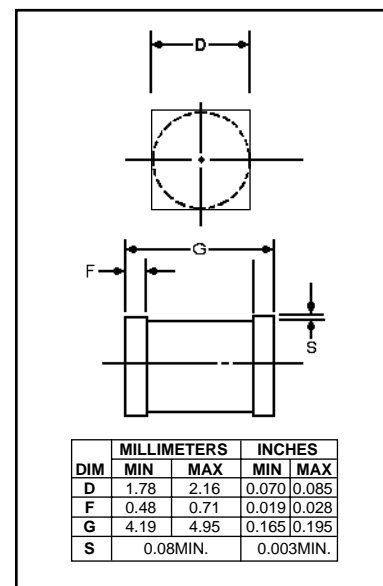


FIGURE 1

DESIGN DATA

CASE: D-5D, Hermetically sealed glass case, per MIL-PRF- 19500/609

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JEC}$): 50 °C/W maximum at L = 0

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 25 °C/W maximum

POLARITY: Cathode end is banded

MOUNTING SURFACE SELECTION:
The Axial Coefficient of Expansion (COE) of this device is approximately + 4PPM / °C. The COE of the Mounting Surface System should be selected to provide a suitable match with this device.



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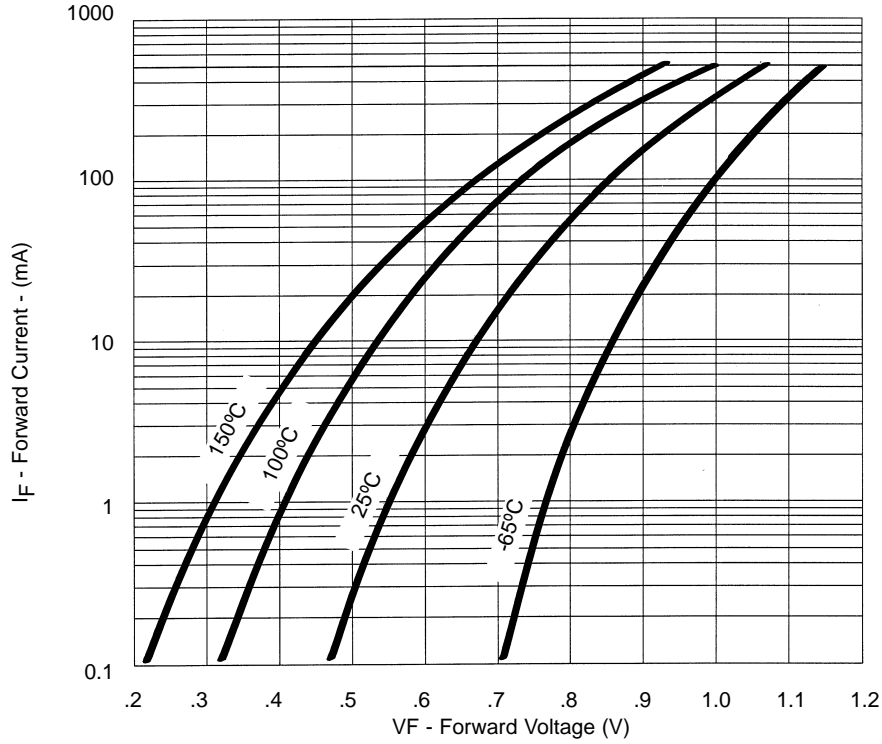


FIGURE 2
Typical Forward Current
vs Forward Voltage

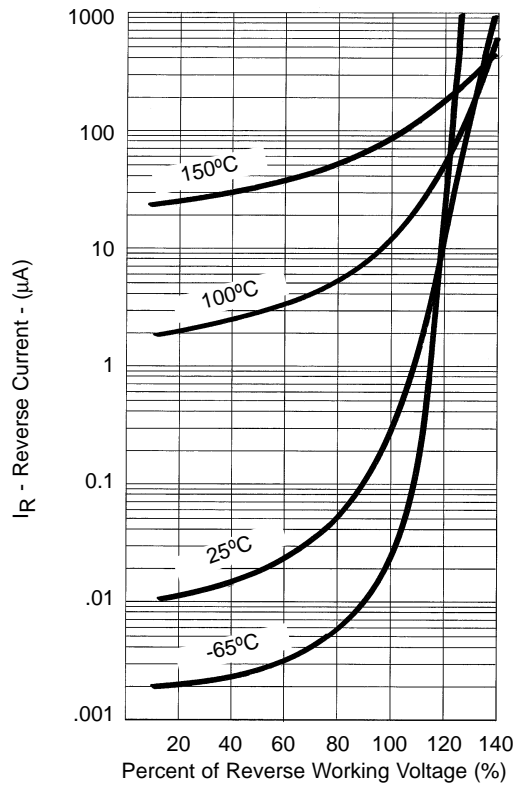


FIGURE 3
Typical Reverse Current
vs Reverse Voltage

NOTE : All temperatures shown on graphs are junction temperatures



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