

- 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		
	V _{dC}		mA (PULSED)
	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

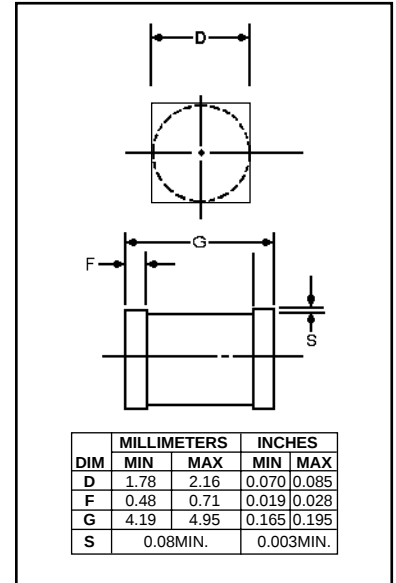


FIGURE 1

DESIGN DATA

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

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JC}$): 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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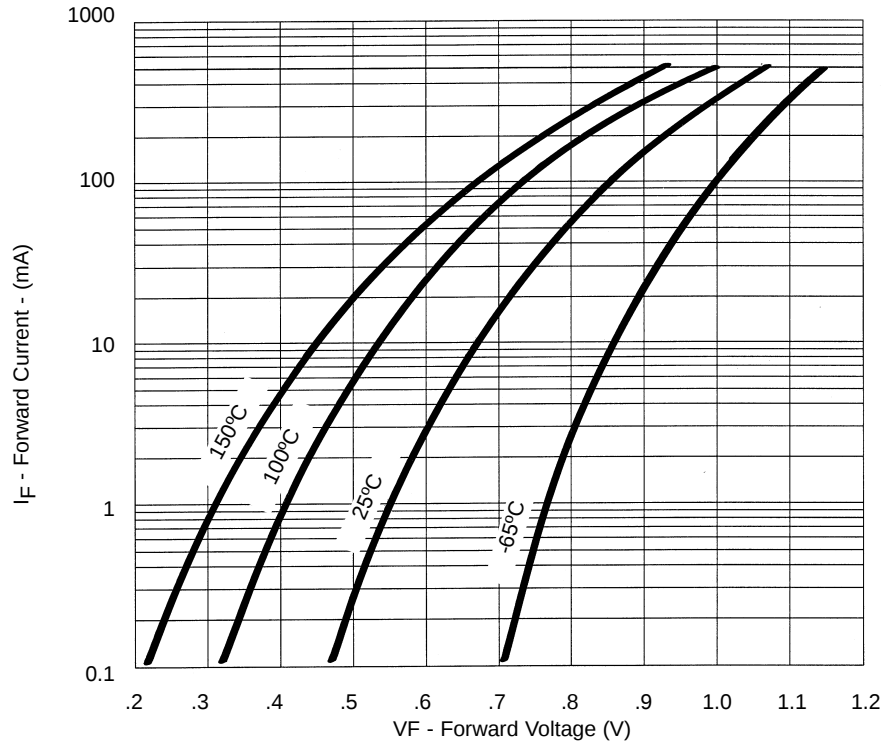


FIGURE 2
Typical Forward Current
vs Forward Voltage

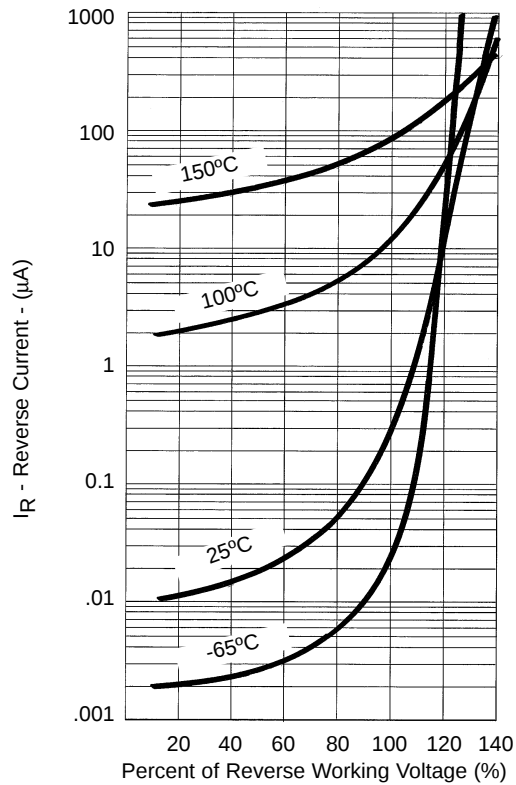


FIGURE 3
Typical Reverse Current
vs Reverse Voltage

NOTE : All temperatures shown on graphs are junction temperatures