- 1N6638US,1N6642US, 1N6643US AVAILABLE IN JAN, JANTX, JANTXV, AND JANS PER MIL-PRF-19500/578
- 1N6638U,1N6642U, 1N6643U AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/578
- SWITCHING DIODES
- NON-CAVITY GLASS PACKAGE
- METALLURGICALLY BONDED

1N6638U & US
1N6642U & US
1N6643U & US

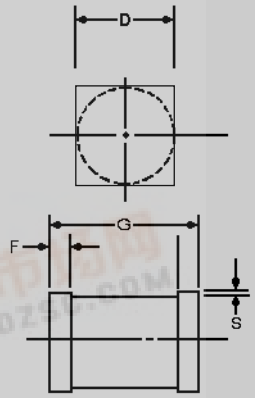
MAXIMUM RATINGS

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°C
Surge Current: I_{FSM} = 2.5A, half sine wave, P_W = 8.3ms

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

TYPES	V_{BR} @ I_R =100 µA	V_{RWM}	V_{F1} I_{FM} =10 mA (Pulsed)	V_{F2} @ I_{F2} (Pulsed)		t_{fr} I_F =50 mA	t_{rr} I_R = 10 mA I_F = 10 mA I_{REC} = 1 mA
	V (pk)	V (pk)	V dc	V dc	mA	ns	ns
1N6638U & US	150	125	0.8	1.1	200	20	4.5
1N6642U & US	100	75	1.0	1.2	100	20	5.0
1N6643U & US	75	50	1.0	1.2	100	20	6.0

TYPES	I_{R1} V_R = 20 V	I_{R2} @V_R = V_{RWM}	I_{R3} V_R = 20 V T_A = 150°C	I_{R4} V_R = V_{RWM} T_A = 150°C	C_{T1} V_R = 0V	C_{T2} V_R = 1.5V
	nA dc	µA dc	µA dc	µA dc	pF	pF
1N6638U & US	35	0.5	50	100	2.5	2.0
1N6642U & US	25	0.5	50	100	5.0	2.8
1N6643U & US	50	0.5	75	160	5.0	2.8



DIM	MILLIMETERS MIN	MILLIMETERS MAX	INCHES MIN	INCHES MAX
D	1.78	2.16	0.070	0.085
F	0.48	0.71	0.019	0.028
G	4.19	4.95	0.165	0.195
S	0.08MIN.		0.003MIN.	

FIGURE 1

DESIGN DATA

CASE: D-5D, Hermetically sealed glass case, per MIL-PRF- 19500/578

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.

COMPENSATED DEVICES INCORPORATED
22 COREY STREET, MELROSE, MASSACHUSETTS 02176
PHONE (781) 665-1071 FAX (781) 665-7379

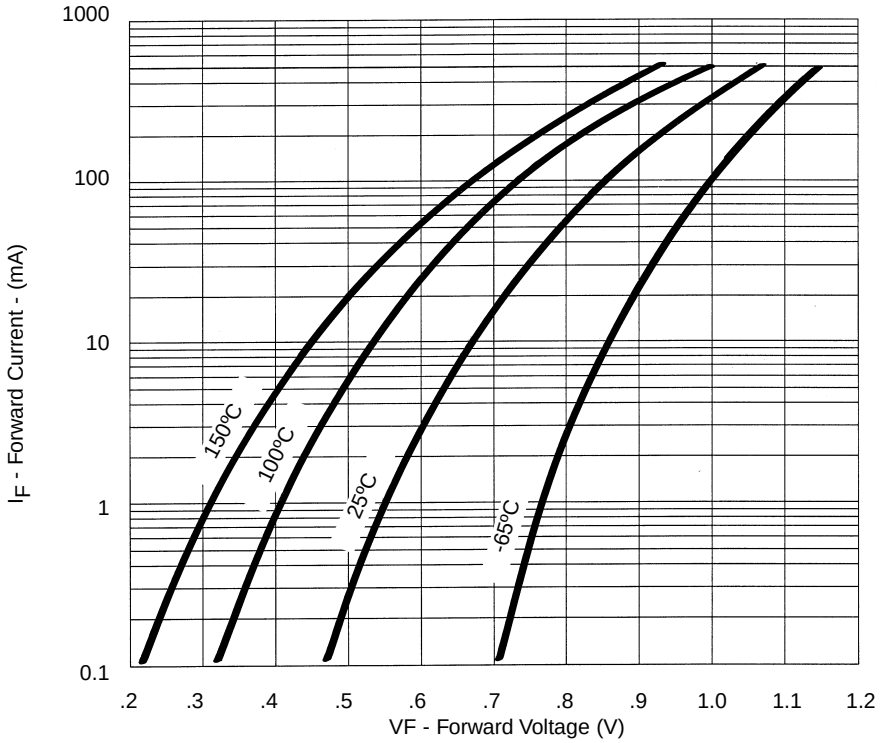
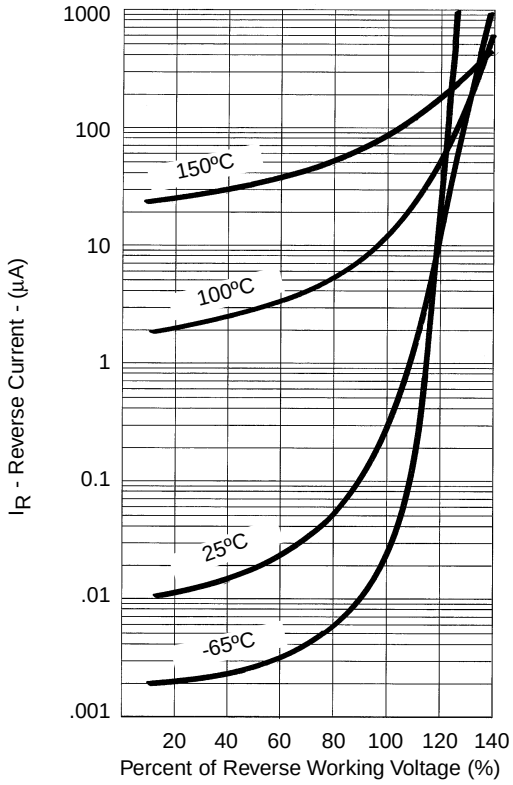


FIGURE 2
Typical Forward Current
vs Forward Voltage



NOTE : All temperatures shown on graphs are junction temperatures

FIGURE 3
Typical Reverse Current