

- 1N4153 and 1N4153-1 AVAILABLE IN JAN, JANTX, AND JANTXV PER MIL-PRF-19500/337
- SWITCHING DIODES
- HERMETICALLY SEALED
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

1N4153 and 1N4153-1

MAXIMUM RATINGS

Junction Temperature: -85°C to +175°C
 Storage Temperature: -65°C to +175°C
 Operating Current: 150 mA @ $T_A = +25^\circ\text{C}$
 Derating: 1.0 mA dc/°C Above $T_A = +25^\circ\text{C}$
 Forward Surge Current: 2A (pk), (tp = 1μs); 0.25A (pk), (tp = 1s)

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

Type	V_{BR}	V_{RWM}	I_{R1}	I_{R2}	C	t_{rr}
	$I_R = 5 \mu\text{A}$		$V_R = 50 \text{ V dc}$ $T_A = 25^\circ\text{C}$	$V_R = 50 \text{ V dc}$ $T_A = 150^\circ\text{C}$	$V_R = 0; f = 1 \text{ MHz};$	$I_F = I_R = 10 \text{ mA dc}$ $R_L = 100 \text{ ohms}$
	V dc	V (pk)	nA dc	μA dc	pF	ns
1N4153-1	75	50	50	50	2.0	4

FORWARD VOLTAGE LIMITS – ALL TYPES

Limits	V_{F1}	V_{F2}	V_{F3}	V_{F4}	V_{F5}	V_{F6}
	$I_F = 100 \mu\text{A dc}$	$I_F = 250 \mu\text{A dc}$	$I_F = 1 \text{ mA dc}$	$I_F = 2 \text{ mA dc}$	$I_F = 10 \text{ mA dc}$	$I_F = 20 \text{ mA dc}$
	V dc	V dc	V dc	V dc	V dc	V dc
minimum	0.49	0.53	0.59	0.62	0.70	0.74
maximum	0.55	0.59	0.67	0.70	0.81	0.88

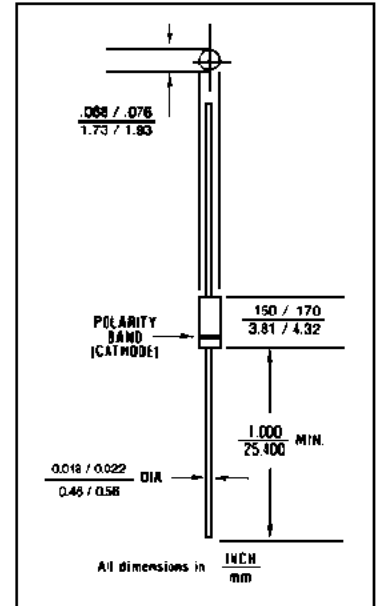


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case per MIL-S-19500/337 D0-35 outline

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JL}$): 250 °C/W maximum at L = .375

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 70 °C/W maximum

POLARITY: Cathode end is banded.

MOUNTING POSITION: Any.



6 LAKE STREET, LAWRENCE, MASSACHUSETTS 01841
 PHONE (978) 620-2600
 WEBSITE: <http://www.microsemi.com>
 FAX (781) 689-0803

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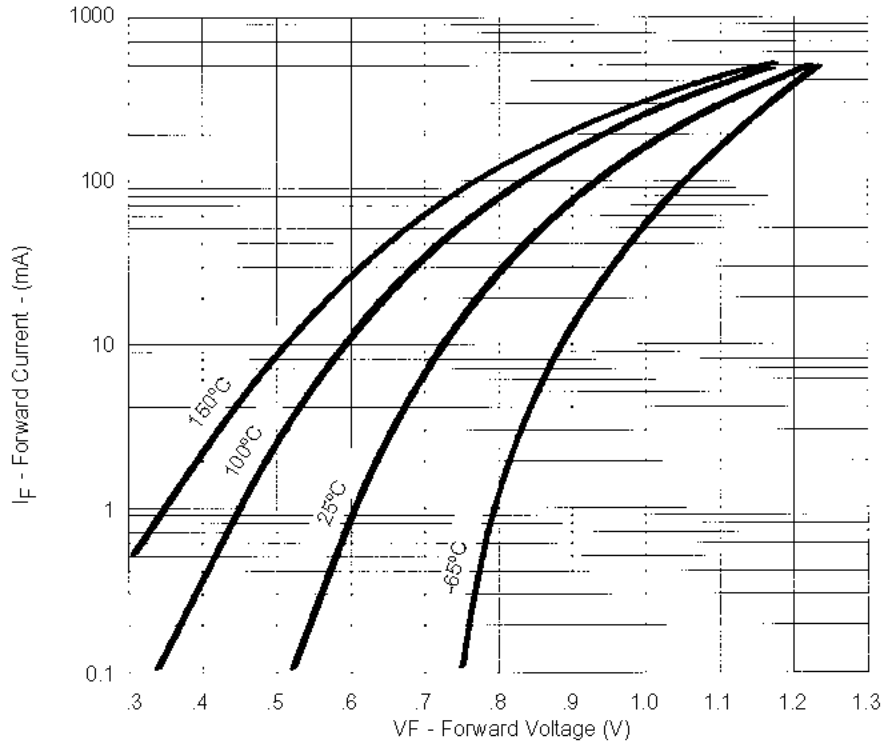
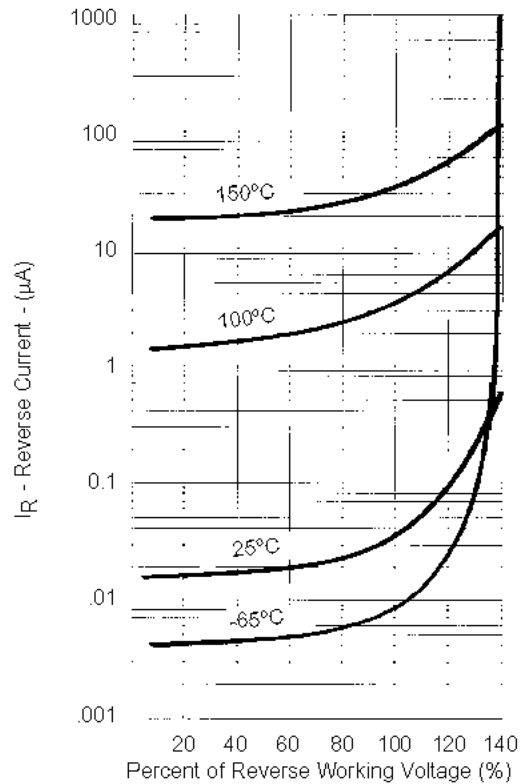


FIGURE 2
Typical Forward Current
vs Forward Voltage



NOTE : All temperatures shown on graphs are junction temperatures

FIGURE 3
Typical Reverse Current
vs Reverse Voltage