

- 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

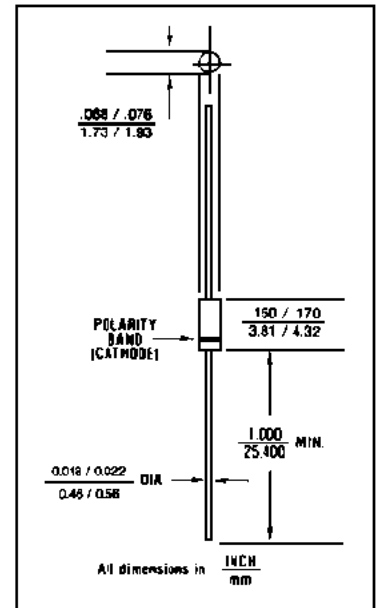


FIGURE 1

### 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

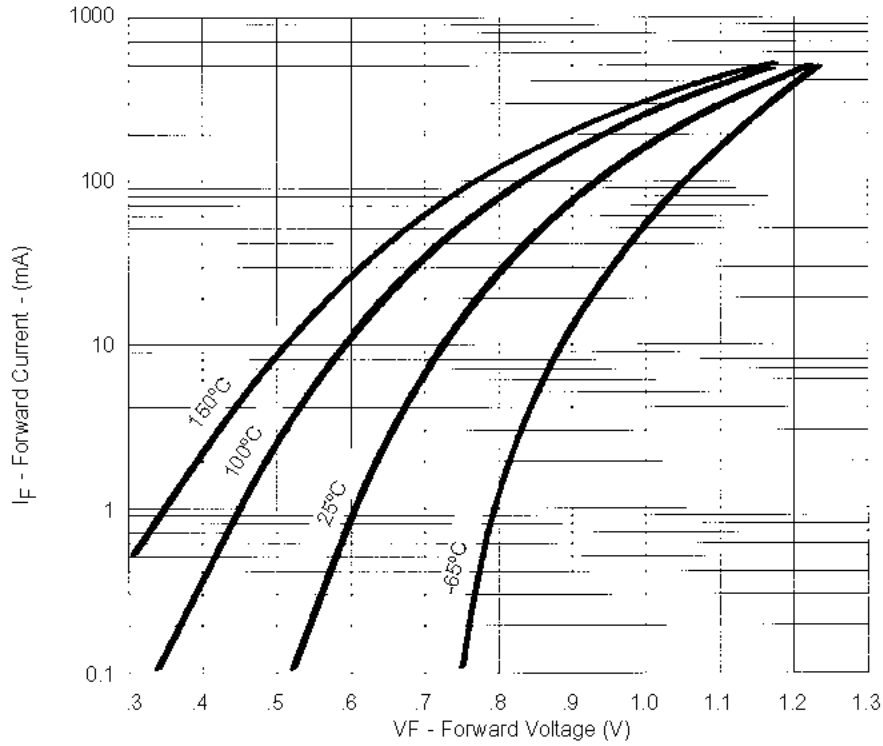
**POLARITY:** Cathode end is banded.

**MOUNTING POSITION:** Any.

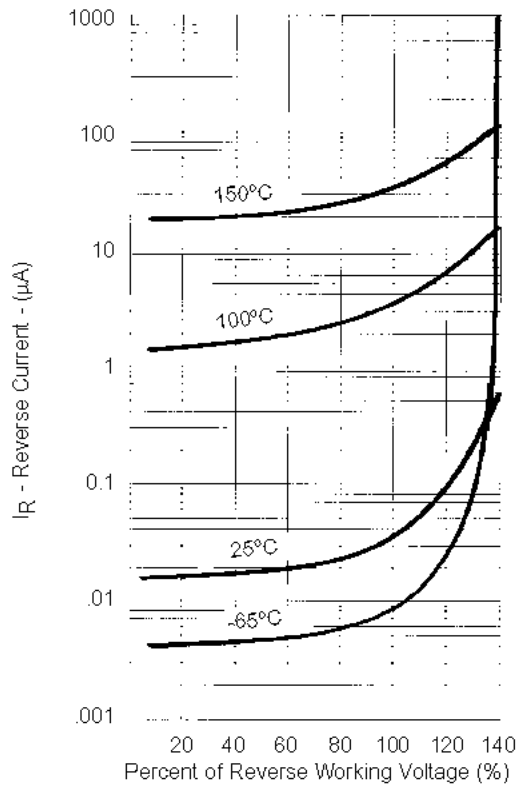


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# IN4153 and IN4153-1



**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