



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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- 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

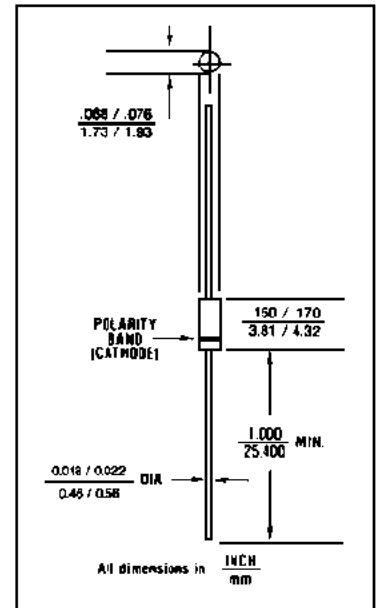


FIGURE 1

## 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

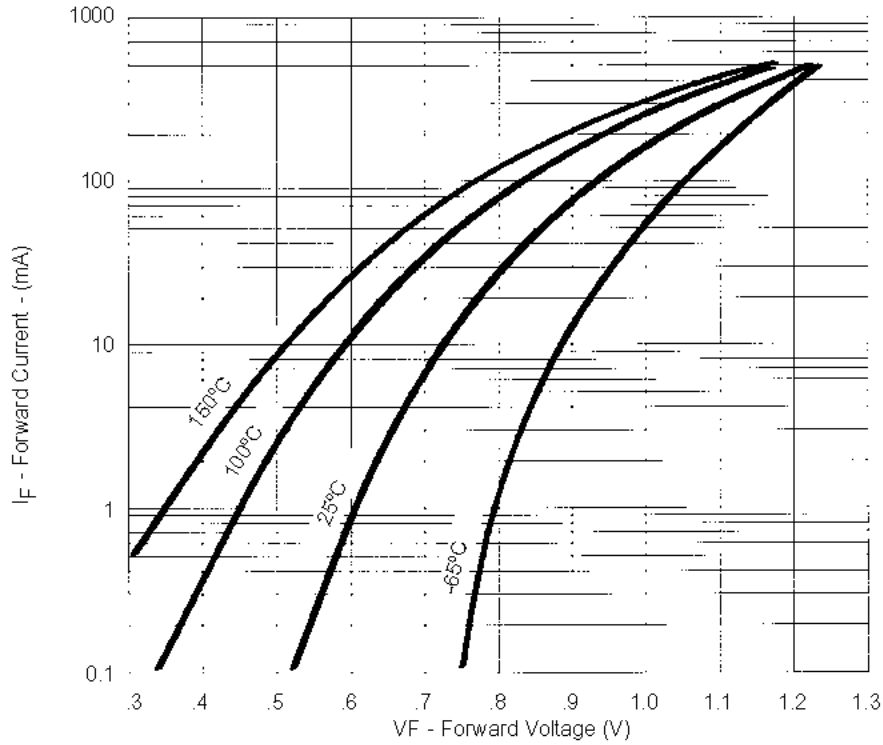
**THERMAL IMPEDANCE:** ( $Z_{\theta JX}$ ): 70 °C/W maximum

**POLARITY:** Cathode end is banded.

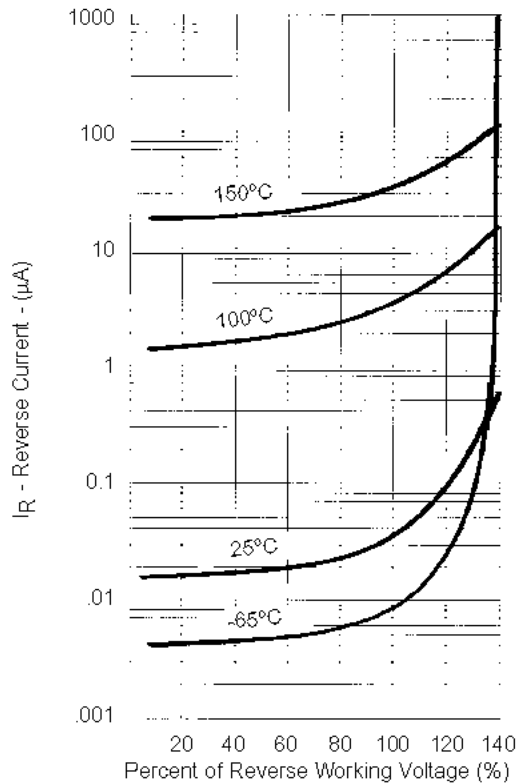
**MOUNTING POSITION:** Any.



# IN4153 and IN4153-1



**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