# **Small Signal Diode**





#### **Features**

- · High speed silicon switching diodes, axial leaded.
- · General purpose, industrial, military and space applications.
- Hermetically sealed glass with a stud on either side of the glass passivated chip provides excellent stability.
- · Extremely low leakage and very high reliability.

### Absolute Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Values	Unit	
Peak Repetitive Reverse Voltage	Vrrm	100	V	
Reverse Voltage (Continuous)	VR	75	]	
Average Forward Current	lf(AV)	150		
Forward Current (DC)	lF	200	]	
Repetitive Peak Forward Current	IFRM	450	mA	
Non Repetitive Peak Surge Current tp = 1µ second tp = 1 second	lғsм	2000 500		
Power Dissipation Derating Factor	P <sub>TA</sub> 500 2.85		mW mW / °C	
Operating and Storage Junction Temperature Range	Тл, Тэтс	-65 to +200	°C	

### **Electrical Characteristics (TA = 25°C unless otherwise specified)**

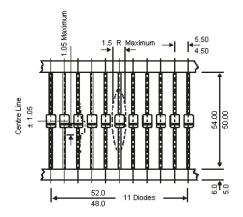
Parameter	Symbol	Test Condition	Minimum	Maximum	Unit
Forward Voltage	VF	IF = 10mA	-	1	V
Reverse Current	lR	VR = 20V VR = 75V VR = 20V, TJ = 150°C VR = 75V, TJ = 150°C	-	25 5 50 100	nA μA μA μA
Reverse Breakdown Voltage	VBR	I <sub>R</sub> = 100μA 100 I <sub>R</sub> = 5μA 75		-	V
Dynamic Characteristics	•			•	
Diode Capacitance	Cd	V <sub>R</sub> = 0, f = 1MHz	-	4	pF
Forward Recovery Voltage	Vfr	I <sub>F</sub> = 50mA, tr = 20ns	-	2.5	V
Reverse Recovery Time	trr	IF = 10mA, to IR = 60mA RL = 100 $\Omega$ Measured at IR = 1mA	-	4	ns

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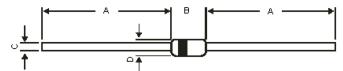




#### 52mm Taping Specification

- 1. T and A indicates axial tape and ammo packing (52mm tape spacing).
- 2. 300mm (minimum) leader tape on every spool.
- 3. Number of empty places allowed 0.25% without consecutive empty places.
- 4. Ends of leads shall preferably not protrude beyond the tapes.
- 5. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.

### DO-35 Glass Axial Package



Dimensions	Minimum	Maximum	
А	25.40	-	
В	3.03	4.44	
С	0.46	0.56	
D	1.52	2.29	

**Dimensions: Millimetres** 

### **Specification Table**

Vrrm (V)	lf(av) (mA)	V <sub>f (V)</sub> at I <sub>f</sub> = 10mA	Length	Diameter	Package	Part Number
100	150	1	4.25mm	1.85mm	DO-35	1N4148

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