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# 1N4938



**DO-35**

Color Band Denotes Cathode

## Small Signal Diode

### Absolute Maximum Ratings \* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	200	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	500	mA
I <sub>F(SM)</sub>	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0	A
		4.0	A
T <sub>STG</sub>	Storage Temperature Range	-65 to +200	°C
T <sub>J</sub>	Operating Junction Temperature	175	°C

\* These ratings are limiting values above which the serviceability of the diode may be impaired.

#### NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

## Thermal Characteristics

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	500	mW
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	300	°C/W

## Electrical Characteristics T<sub>A</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 100μA	200		V
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 100mA		1.0	V
I <sub>R</sub>	Reverse Leakage	V <sub>R</sub> = 75V		100	nA
		V <sub>R</sub> = 175V, T <sub>A</sub> = 175°C		100	μA
C <sub>T</sub>	Total Capacitance	V <sub>R</sub> = 0V, f = 1MHz		5	pF
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> = 3mA, I <sub>R</sub> = 30mA I <sub>rr</sub> = 1mA, R <sub>L</sub> = 100Ω		50	ns

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