

**DESCRIPTION**

These silicon switching diodes are available in DO-35 glass packages and LL4938 Mini-Melf (DO-213AA).

These devices are used in general-purpose applications where high voltage and switching speed are important.

When ordering Mil-PRF-19500/169 parts, use the number with the appropriate 1N4938-1 JAN, JTX or JTXV prefix.

**KEY FEATURES**

- metallurgical bonded.
- available up to JANTXV for 1N4938-1 axial devices & 1N4938UR-1 MINI-MELF.

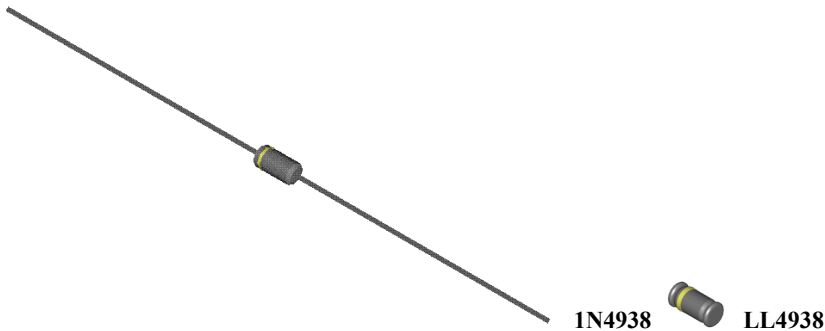
**IMPORTANT:** For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

**ABSOLUTE MAXIMUM RATINGS AT 25° C  
(UNLESS OTHERWISE SPECIFIED)**

Rating	Symbol	Value	Unit
Peak Inverse Voltage@ 100 $\mu$ A	PIV	200(Min.)	Volts
Average Rectified Current	I <sub>A</sub> vg	100	mAmps
Continuous Forward Current	I <sub>F</sub> dc	100	mAmps
Peak Surge Current (t <sub>peak</sub> = 1 $\mu$ sec.)	I <sub>peak</sub>	1.0	Amp
Power Dissipation T <sub>L</sub> = 50°C, L = 3/8" from body	P <sub>tot</sub>	500	mWatts
Storage Temperature Range	T <sub>S t</sub>	-65 to +200	°C
Operating Temperature	T <sub>Op</sub>	-65 to +175	°C

**APPLICATIONS/BENEFITS**

- High Voltage and Switching Speed.

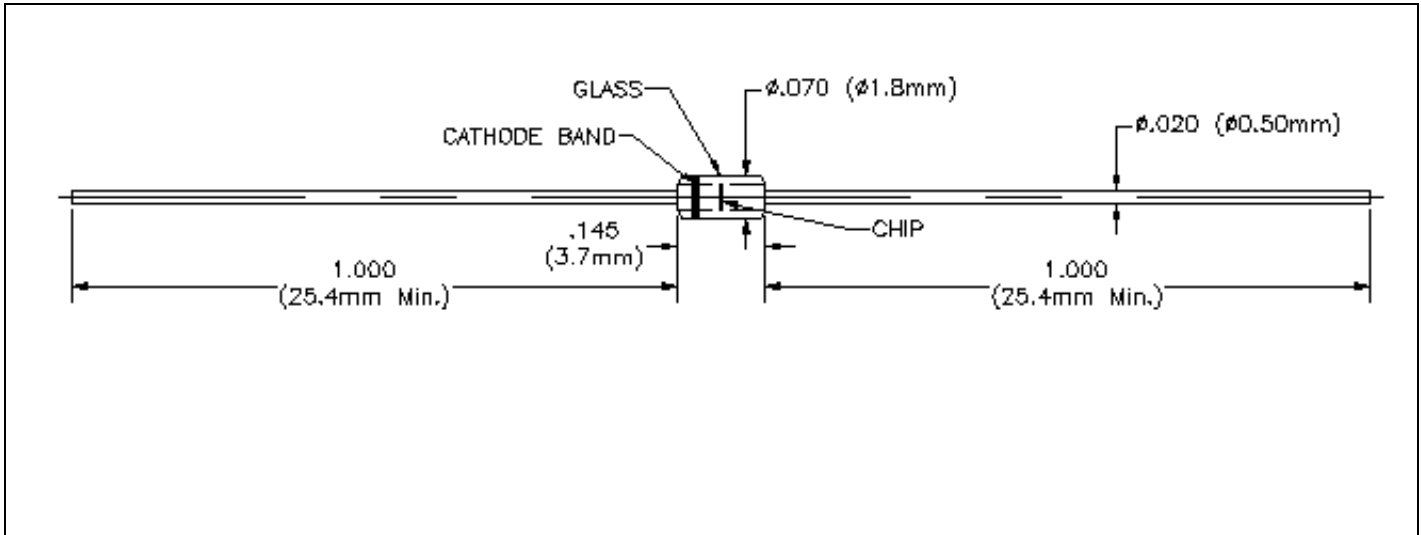


**ELECTRICAL PARAMETERS @ 25°C (unless otherwise specified)**

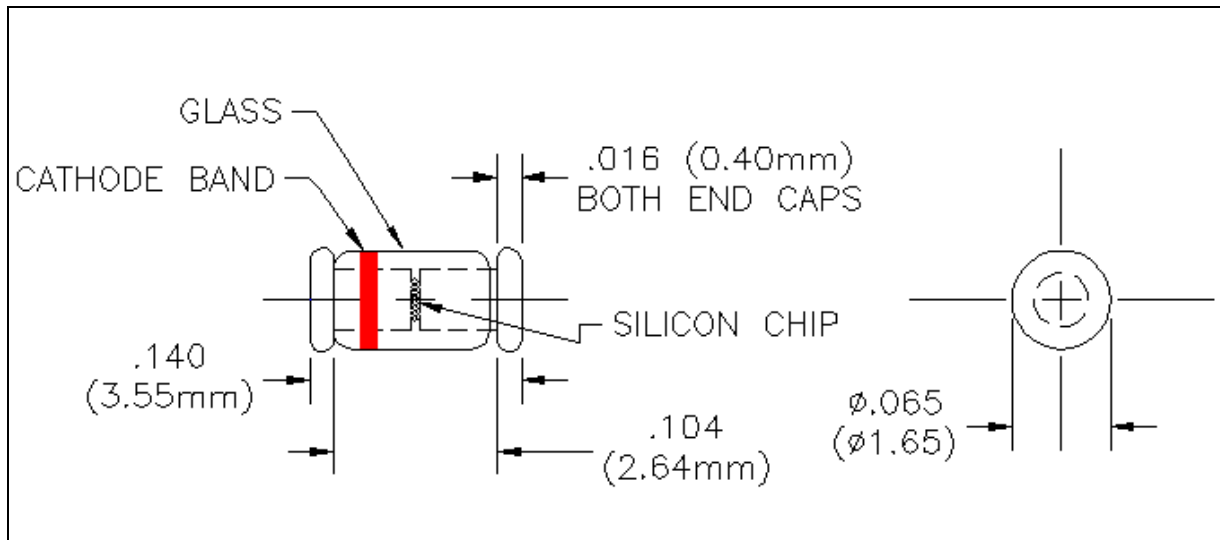
Parameter	Symbol	Conditions	Min	Max	Units
Forward Voltage Drop	$V_F$	$I_F = 100\text{mA}$		1.0	V
Reverse Leakage Current @150°C	$I_R$	$V_R = 175\text{ V}$		100	$\mu\text{A}$
Reverse Leakage Current	$I_R$	$V_R = 175\text{ V}$		100	nA
Capacitance	$C_T$	$V_R = 0\text{ V}, F = 1\text{ MHz}$		5.0	$\text{P}_F$
Reverse Recovery Time	$T_{rr}$	(See note 1)		50	ns

Note 1: Per Method 4031-B with  $I_F = I_R = 30\text{ ma}$ ,  $R_L = 100\text{ Ohms}$ ,  $C = 3\text{ Pf}$

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1N4938 DO-35 Glass Package  
(nominal dimensions)



LL4938 LL-34/35 MINI-MELF  
SMD Package (DO-213AA)  
(nominal dimensions)



1N4938, 1N4938-1, LL4938

Silicon Switching Diode

PRODUCT PREVIEW

**NOTES:**