



WATERTOWN DIVISION

1N4938, 1N4938-1, LL4938

Silicon Switching Diode

PRODUCT PREVIEW

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.

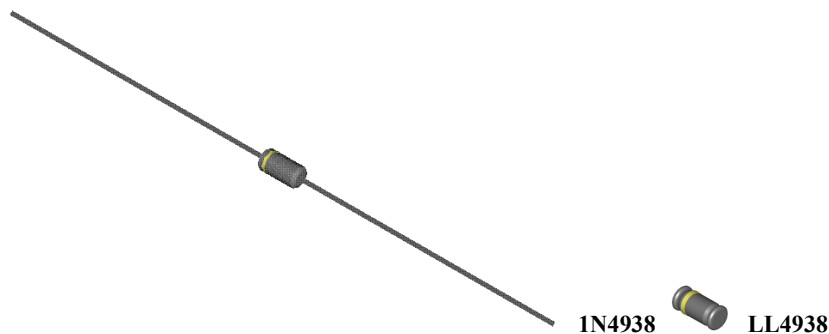
IMPORTANT: For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

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

Rating	Symbol	Value	Unit
Peak Inverse Voltage@ 100μA	PIV	200(Min.)	Volts
Average Rectified Current	$I_{A\text{vg}}$	100	mAmps
Continuous Forward Current	$I_{F\text{dc}}$	100	mAmps
Peak Surge Current ($t_{\text{peak}} = 1\text{ }\mu\text{sec.}$)	I_{peak}	1.0	Amp
Power Dissipation $T_L = 50^\circ\text{C}$, $L = 3/8"$ from body	P_{tot}	500	mWatts
Storage Temperature Range	T_{St}	-65 to +200	°C
Operating Temperature	T_{Op}	-65 to +175	°C

APPLICATIONS/BENEFITS

- High Voltage and Switching Speed.





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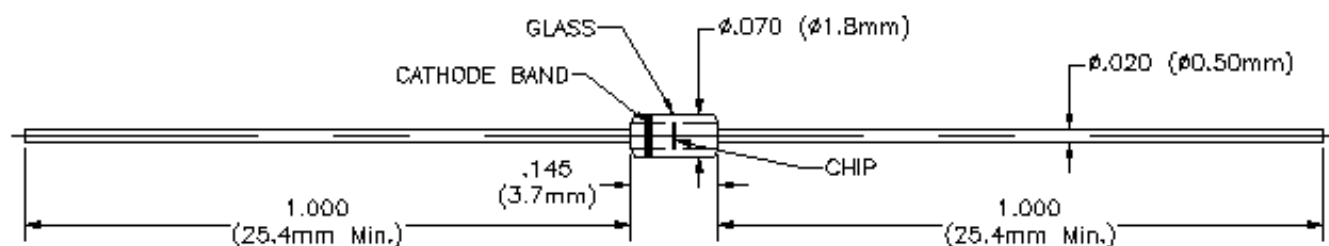
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ELECTRICAL PARAMETERS @ 25°C (unless otherwise specified)

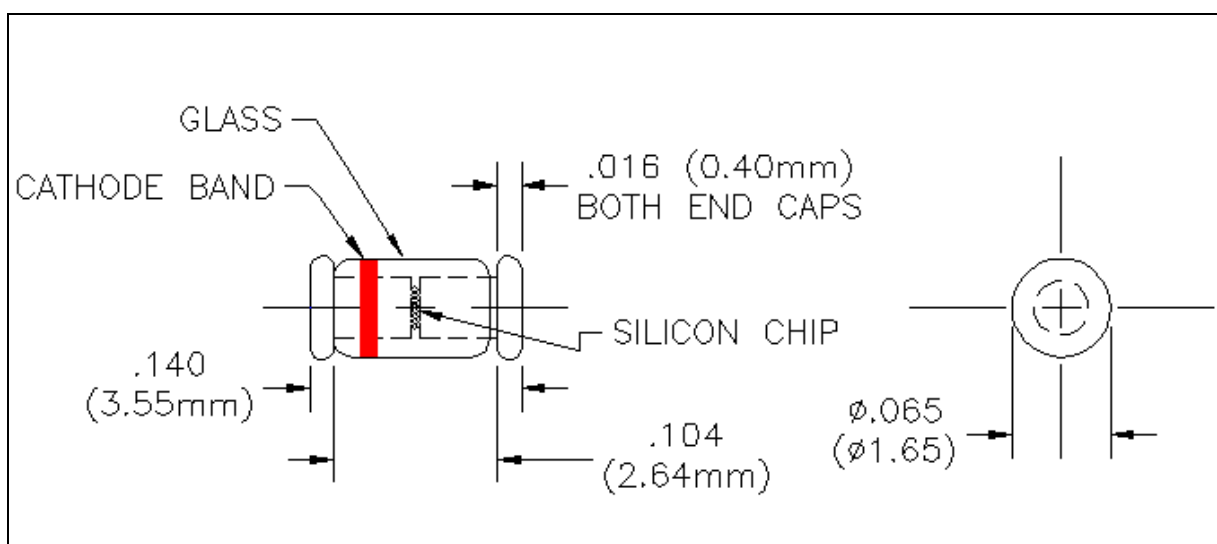
Parameter	Symbol	Conditions	Min	Max	Units
Forward Voltage Drop	V_F	$I_F = 100\text{mA}$		1.0	V
Reverse Leakage Current @150°C	I_R	$V_R = 175\text{ V}$		100	μA
Reverse Leakage Current	I_R	$V_R = 175\text{ V}$		100	nA
Capacitance	C_T	$V_R = 0\text{ V}, F = 1\text{ MHz}$		5.0	Pf
Reverse Recovery Time	T_{rr}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



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NOTES: