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1N4938

SILICON POLARITY SWITCHING DIODE

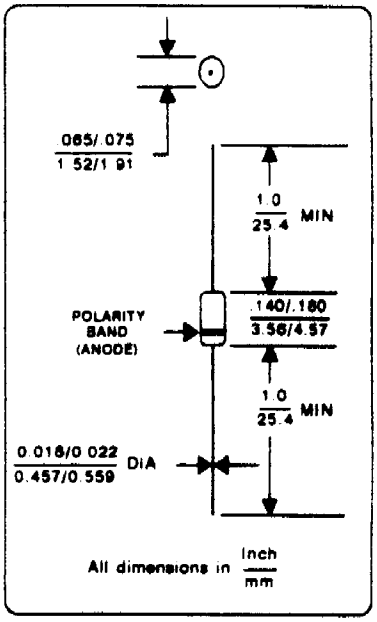
ABSOLUTE MAXIMUM RATINGS

SYMBOL	CHARACTERISTIC	VALUE	UNIT
V_R	Reverse Voltage	175	V
V_{RM}	Peak Reverse Voltage	200	V
I_O	Rectified Current (Average) Half Wave Rectification With Resistive Load at TA = 25OC and f≥50 Hz	100(1)	mA
I_{FSM}	Surge Current at t=1 ms and T_J=25 °C	2.0	A
$P_{D(AV)}$	Power Dissipation at TA = 25 OC	500(1)	mW
T_J	Maximum Junction Temperature	200	°C
T_S	Storage Temperature	-65 to +175	°C

ELECTRICAL CHARACTERISTICS @ 25° C unless otherwise specified

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage		1.0	Volts	I_F = 100 mA
I_R	Reverse Current		0.1 100	nA nA	V_R = 175 Volts @ T_J = 25°C V_R = 175 Volts @ T_J = 150°C
$V_{(BR)R}$	Reverse Breakdown Voltage	200		Volts	$I_{(BR)R}$ = 100 uA pulses
$C_{T...}$	Capacitance		5	pF	V_F = V_R = 0
t_{rr}	Reverse Recovery Time		50	nS	from I_F=10 mA to I_R=1 mA, V_R = 6 V, R_L = 100 ohms
$R_{\theta JA}$	Thermal Resistance Junction to Ambient Air		0.35(1)	K/mW	
nV	Rectification Efficiency	45			f=100 MHz, V_{RF}=2 V

NOTE 1 Valid provided that leads are kept at ambient temperature at a distance of 8 mm (.32") from case



DO-35 OUTLINE

DESIGN DATA

CASE: Hermetically sealed glass case. DO-35 Outline.

LEAD MATERIAL: Copper Clad Steel

LEAD FINISH: Tin Plate

THERMAL RESISTANCE: 250 °C/w (Typical) junction to ambient.

POLARITY: Diode to be operated with the banded (cathode) end positive with respect to the opposite end

WEIGHT: 0.14 Grams

MOUNTING POSITION: Any