

HIGH SPEED SILICON SWITCHING DIODE

1N4148, 1N4448



DO-35

Glass Axial Package

Polarity : Colour band denotes cathode end

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 ($T_A = 25^\circ\text{C}$) ⁽¹⁾

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Maximum Repetitive Reverse Voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{(AV)}$	200	mA
DC Forward Current	I_F	300	mA
Recurrent Peak Forward Current	I_P	400	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	Pulse Width = 1.0s	1.0
		Pulse Width = 1.0 μ s	4.0
Power Dissipation	P_D	500	mW
Storage Temperature Range	T_{STG}	-65 to +200	$^\circ\text{C}$
Operating Junction Temperature Range	T_J	-65 to +175	$^\circ\text{C}$

Note 1 : These ratings are limiting values above which the serviceability of the diode may be impaired.

Thermal Characteristics

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	300	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified) ⁽²⁾

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	V_F	$I_F=10\text{mA}$		1.0	V
		$I_F=5\text{mA}$	0.62	0.72	V
		$I_F=100\text{mA}$		1.0	V
Reverse Leakage	I_R	$V_R=20\text{V}$		25	nA
		$V_R=20\text{V}; T_A = 150^\circ\text{C}$		50	μA
		$V_R=75\text{V}$		5.0	μA
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$	100		V
		$I_R=5\mu\text{A}$	75		V
Diode Capacitance	C_T	$V_R=0; f = 1.0\text{MHz}$		4	pF
					2
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$ to $I_R=60\text{mA}$, $R_L=100\Omega$ measured at $I_R=1\text{mA}$		4	ns

Note 2 : Non-recurrent square wave $P_W = 8.3\text{ms}$



Continental Device India Pvt. Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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CIN No. - U32109DL1964PTC004291