

TECHNICAL DATA  
DATA SHEET 4251, REV. -

## Isolated Diode Array

### Applications:

- High Frequency Data Lines
- RS-323 & RS-432 Networks
- LAN, Ethernet, I/O Ports
- IEC61000-4 compatible for ESD / EFT / Surge

### Features:

- Protects up to 8 I/O Ports
- Isolated diodes eliminate crosstalk
- High Density Packaging
- High Breakdown Voltage; High Speed Switching (< 10 nsec)
- Low Capacitance; Low Leakage
- Hermetic Ceramic package
- TX, TXV, S level screening available

### Maximum Ratings:

All ratings are at 25 °C unless otherwise noted

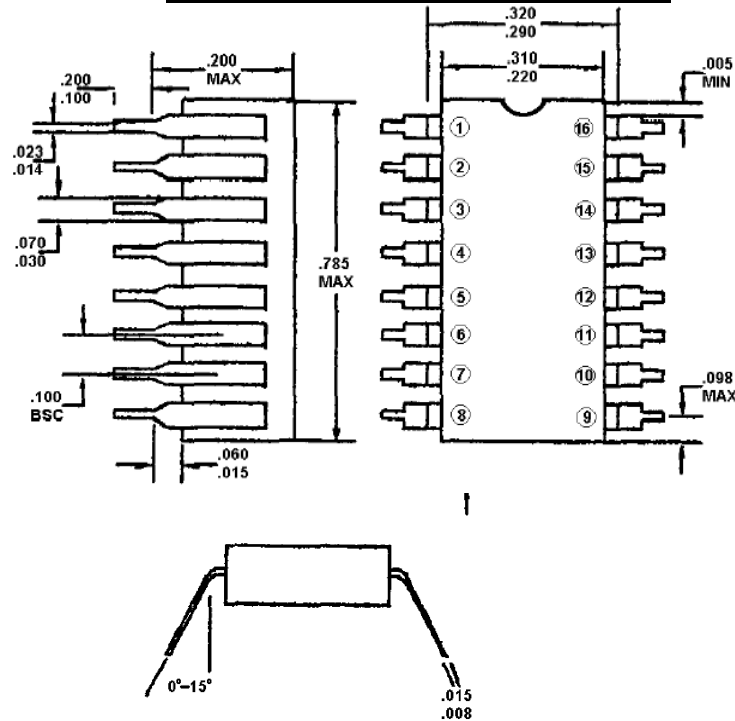
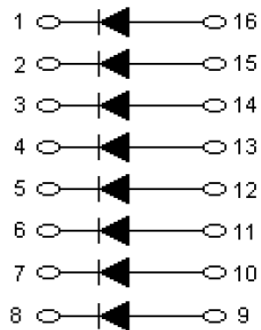
Characteristics	Symbol	Condition	Max.	Units
Reverse Breakdown Voltage	$V_{BR}$	Per diode, Pulsed: PW = 100ms max.; duty cycle < 20%	75	Vdc
Continuous Forward Current	$I_O$	Per diode, Derate at 2.4mA/°C above +25 °C	300	mA
Peak Surge Current	$I_{FSM}$	Per diode, tp= 1/120 s	500	mA
Power Dissipation	$P_D$	Per Junction, Derate at 4.0mW/°C above +25 °C	400	mW
Power Dissipation	$P_D$	Per Package, Derate at 4.8 mW/°C above 25 °C	600	mW
Max. Operating Temperature	$T_J$	-	-65 to +150	°C
Max. Storage Temperature	$T_{stg}$	-	-65 to +200	°C

### Electrical Characteristics:

All ratings are per diode and at 25 °C unless otherwise noted

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	Pulsed: PW = 300us +/- 50us, duty cycle < 2%, 90us after leading edge, $I_f = 100\text{mAdc}$	1.00	V
Max Forward Voltage Match	$V_{F5}$	$I_f = 10\text{mAdc}$	5	mV
Max. Reverse Current	$I_{R1}$	@ $V_R = 40\text{V}$	0.1	µA
	$I_{R2}$	@ $V_R = 20\text{V}$	25	nA
Max. Capacitance (Pin to Pin)	$C_T$	@ $V_R = 0\text{V}$ , F=1MHz	4.0	pF
Max. Forward Recovery Time	$T_{FR}$	$I_f = 100\text{mA}$	15	ns
Max. Reverse Recovery Time	$T_{RR}$	$I_f = I_R = 100\text{mAdc}$ , irr = 1mAdc, RL = 100 ohms	10	ns

SENSITRON

**TECHNICAL DATA**  
**DATA SHEET 4251, REV. -**
**Mechanical Dimensions: in inches / mm**

**Electrical Schematic**

**DISCLAIMER:**

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.