

TECHNICAL DATA  
DATA SHEET 5151, 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

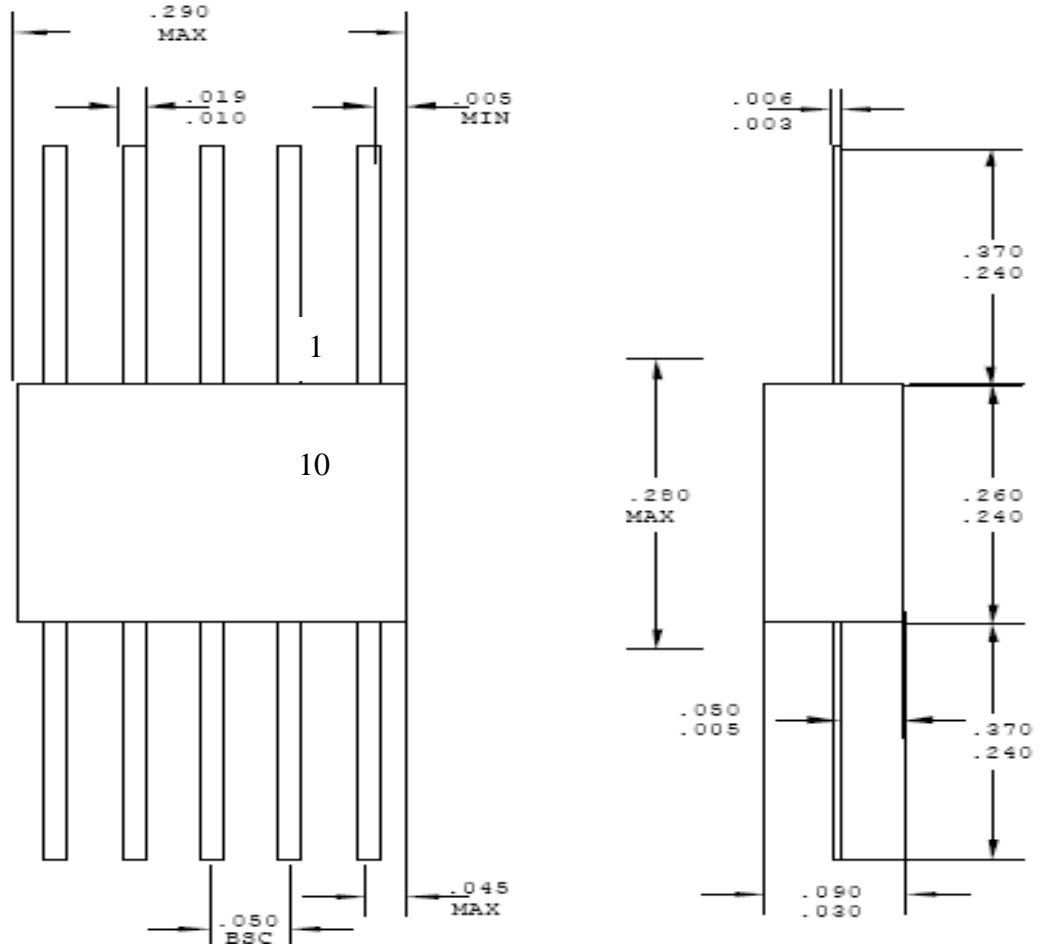
| Characteristics            | Symbol    | Condition                                      | Max.        | Units |
|----------------------------|-----------|--|-------------|-------|
| Reverse Breakdown Voltage  | $V_{BR}$  | Per diode @ 10 $\mu$ A                         | 60          | Vdc   |
| Continuous Forward Current | $I_O$     | Per diode, Derate at 2.4 mA/°C above +25 °C    | 300         | mA    |
| Peak Surge Current         | $I_{FSM}$ | Per diode, $t_p = 8.3$ msec                    | 500         | mA    |
| Power Dissipation          | $P_D$     | Per Junction, Derate at 4.0 mW/°C above +25 °C | 400         | mW    |
| Power Dissipation          | $P_D$     | Per Package, Derate at 4 mW/°C above 25 °C     | 500         | mW    |
| Max. Operating Temperature | $T_J$     | -  | -65 to +150 | °C    |
| Max. Storage Temperature   | $T_{stg}$ | -  | -65 to +200 | °C    |

### Electrical Characteristics:

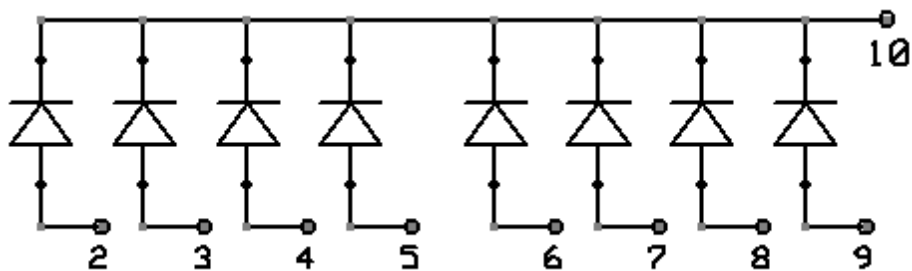
All ratings are per diode and at 25 °C unless otherwise noted

| Characteristics                  | Symbol   | Condition  | Max.         | Units   |   |
|----------------------------------|----------|--|--------------|---------|---|
| Max. Forward Voltage Drop        | $V_{F1}$ | Pulsed<br>PW = 300 $\mu$ s                                     | If = 100mAdc | 1.00    | V |
|                                  | $V_{F2}$ |  | If = 500mAdc | 1.50    | V |
| Max. Reverse Current             | $I_{R1}$ | @ $V_R = 40V$  | 0.1          | $\mu$ A |   |
| Max. Capacitance<br>(Pin to Pin) | $C_T$    | @ $V_R = 0V, f = 1MHz$   | 4            | pF      |   |
| Max. Forward Recovery Time       | $T_{FR}$ | $I_F = 500mA$  | 40           | ns      |   |
| Max. Reverse Recovery Time       | $T_{RR}$ | $I_F = I_R = 200$ mA dc, $I_{RR} = 20$ mA dc, $R_L = 100$ ohms | 20           | ns      |   |

Mechanical Dimensions: in inches / mm



Electrical Schematic



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