PJSR70TB4

Very Low Capacitance Diode Array

This diode array is configured to protect up to two high speed data transmission lines, used in Low Voltage Differential Signal (LVDS) ports. Acting as a line terminator, minimizes overshoot and undershoot conditions
due to bus impedance as well as protect against over-voltage events as electrostatic discharges. This configuration comes in the new SOT543 package, offering a significative printed circuit board space savings compared to the SOT143.

SPECIFICATION FEATURES

- **Maximum Capacitance of 1.0pF at 0Vdc 1MHz Line-to-Ground**
- **Maximum Leakage Current of 1.0µA @ VRWM**
- **New SMT Package SOT543**
- **IEC61000-4-2 Full Compliance; 15kV Air, 8kV Contact***
- **100% Tin Matte finish (LEAD-FREE PRODUCT)**
- **Lead free in comply with EU RoHS 2002/95/EC directives.**
- **Green molding compound as per IEC61249 Std. . (Halogen Free)**

APPLICATIONS

- **USB 2.0 and Firewire Port Protection**
- **HDMI Version 1.3**
- **DVI**

SOT543 Package

+VREF   Line1

Gnd   Line2
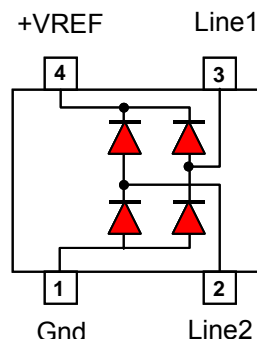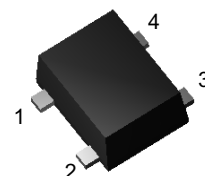
MAXIMUM RATINGS Tj = 25°C Unless otherwise noted

Rating	Symbol	Value	Units
Peak Pulse Current (8/20µs Waveform)	I_{PPM}	12	A
Rectifier Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Operating Junction Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C
Soldering Temperature, t max = 10s	T_L	260	°C

Note: ESD Testing requires to connect a TVS between +VREF and GND, if there is no +VREF Bias connected.

ELECTRICAL CHARACTERISTICS   Tj = 25°C unless otherwise noted

| Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				70	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} = 50µA	85			V
Reverse Leakage Current	I_R	V_R = 70V			1.0	µA
Diode Surge Forward Voltage (8/20µs)	V_{FC}	I_{pp} = 1A			2.0	V
Diode Surge Forward Voltage (8/20µs)	V_{FC}	I_{pp} = 5A			7.0	V
Diode Surge Forward Voltage (8/20µs)	V_{FC}	I_{pp} = 12A			12	V
Off State Capacitance	C_T	0 Vdc Bias f = 1MHz Between I/O Line and GND		0.8	1.0	pF
		0 Vdc Bias f = 1MHz Between I/O lines		0.5	0.6	pF

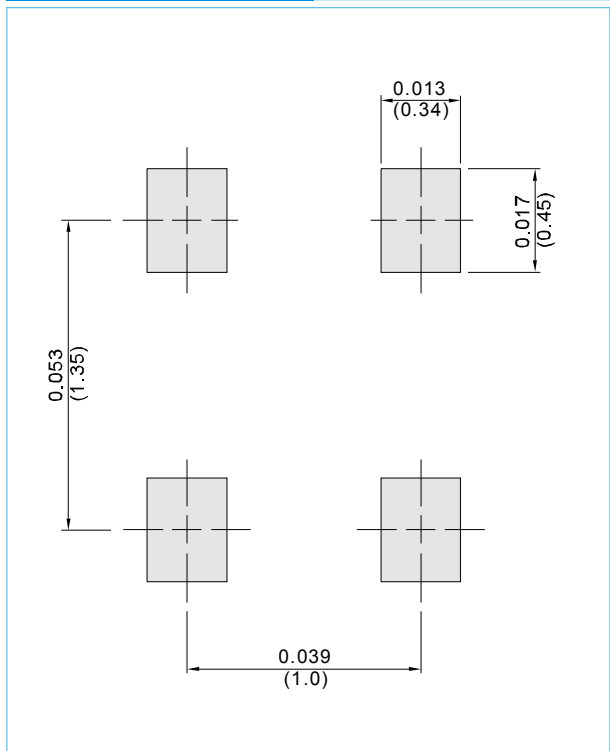## PACKAGE DIMENSIONS - SOT543

SOT-543
Unit : inch(mm)
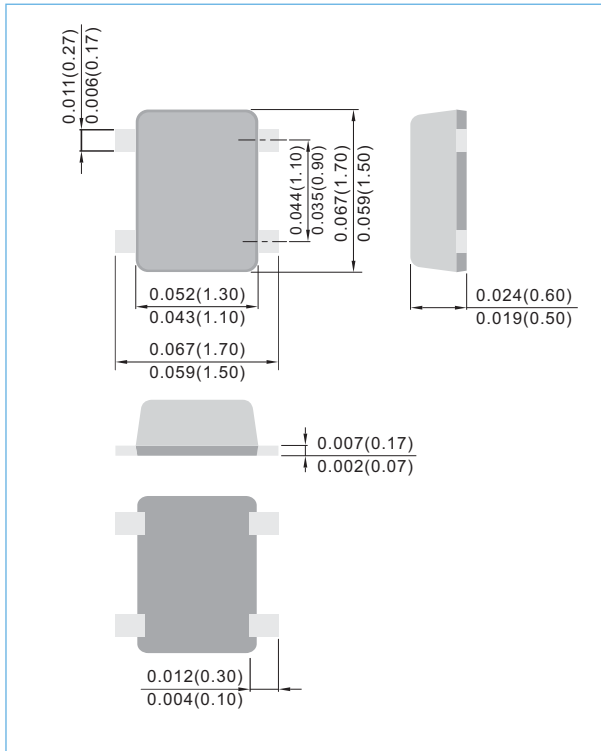
SOT-543
Unit : inch(mm)

APPLICATION EXAMPLE