



## PJSR05TB4 SERIES

### LOW CAPACITANCE TVS AND DIODE ARRAY

This diode array is configured to protect up to two data transmission lines acting as a line terminator, minimizing overshoot and undershoot conditions due to bus impedance as well as protect against over-voltage events as electrostatic discharges. Additionally the TVS Device offers overvoltage transient protection between the operating voltage bus and ground plane. New package SOT-543 offers an ideal solution, minimizing board space in portable consumer applications.

#### FEATURES

- Peak power dissipation of 350W 8x20 $\mu$ s
- Maximum capacitance of 1.2pF at 0Vdc 1MHz Line-to-Ground
- Maximum leakage current of 1.0 $\mu$ A@VRWM
- New SMT package SOT-543
- IEC61000-4-2 compliant 15kV Air, 8kV contact
- In compliance with EU RoHS 2002/95/EC directives

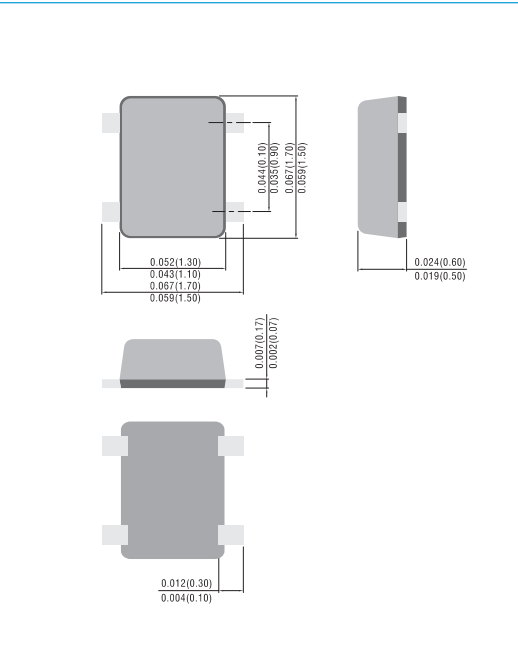
#### MECHANICAL DATA

- Case: SOT-543, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See circuit schematic below
- Approx. Weight: 0.002 gram

#### APPLICATIONS

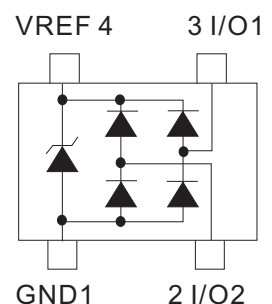
- USB 2.0 and Firewire Ports Protection
- LAN / WLAN Access Point terminals
- HDMI V1.3 Video Port Protection
- DVI Port

SOT-543 Unit: inch ( mm )



### MAXIMUM RATINGS $T_J=25^{\circ}\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20 $\mu$ s Waveform)	P <sub>PPM</sub>	350	W
Soldering Temperature, t <sub>max</sub> =10s	T <sub>L</sub>	260	°C
Operating Junction Temperature Range	T <sub>J</sub>	-55 to + 125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150	°C





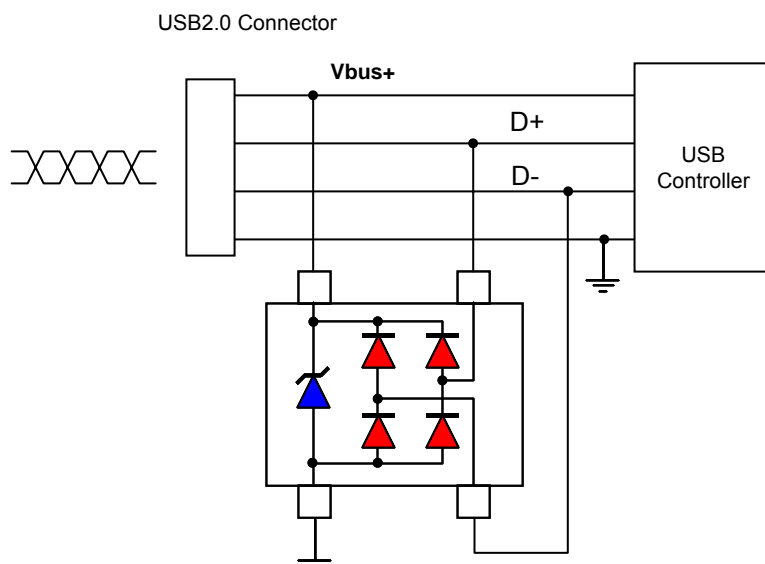
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### ELECTRICAL CHARACTERISTICS(T<sub>J</sub>=25°C) unless otherwise noted

PJSR05TB4 Marking R5						
Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V <sub>RWM</sub>		-	-	5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	6.2	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	1	μA
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =1A	-	-	9	V
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =5A	-	-	12	V
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz Between I/O pins and GND	-	0.9	1.2	pF
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz Between I/O pins	-	0.5	0.6	pF

PJSR12TB4 Marking R2						
Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V <sub>RWM</sub>		-	-	12	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	13.3	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =12V	-	-	1	μA
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =1A	-	-	18	V
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =5A	-	-	22	V
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz Between I/O pins and GND	-	0.9	1.2	pF
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz Between I/O pins	-	0.5	0.6	pF

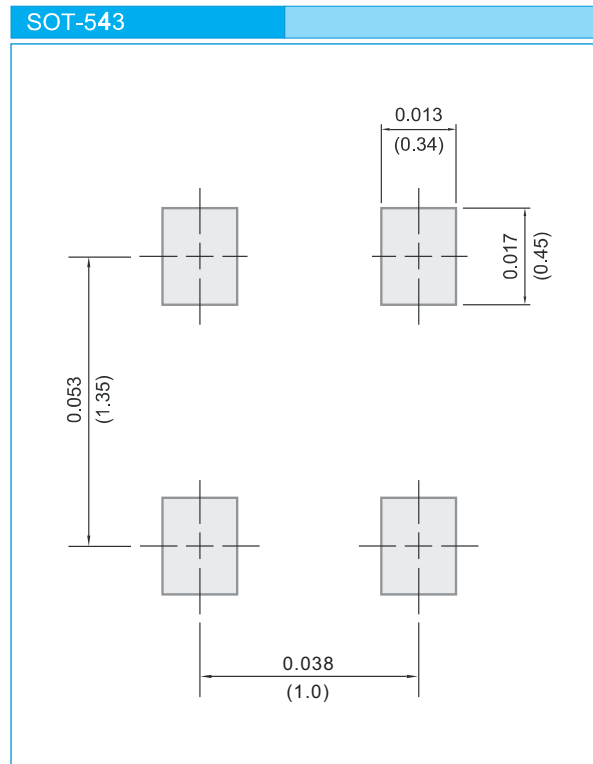
### APPLICATION EXAMPLE





## PJSR05TB4 SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 4K per 7" plastic Reel  
T/R - 10K per 13" plastic Reel

### LEGAL STATEMENT

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