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. Additionaly 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 appliactions.

FEATURES

- Peak power dissipation of 350W 8x20μs
- Maximum capacitance of 1.2pF at 0Vdc 1MHz Line-to-Ground
- Maximum leakage current of 1.0μA@VRWM
- New SMT package SOT-543
- IEC61000-4-2 compliant 15kV Air, 8kV contact
- Lead free in comply with EU RoHS 2002/95/EC directives.

Å Green molding compound as per IEC61249 Std. . (Halogen Free)

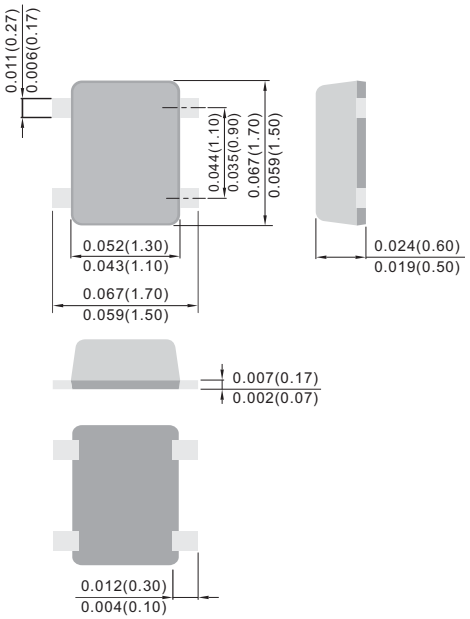
MECHANICAL DATA

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

APPLICATIONS

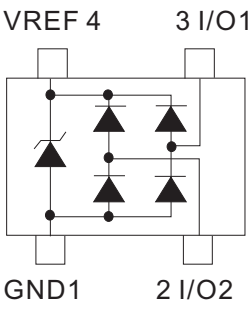
- USB 2.0 and Firewire Ports Protection
- LAN / WLAN Access Point terminals
- HDMI V1.3 Video Port Protection
- DVI Port

SOT-543 Unit : inch(mm)



MAXIMUM RATINGS T_J=25°C unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20μs Waveform)	P_{PPM}	350	W
Soldering Temperature, t max=10s	T_L	260	°C
Operating Junction Temperature Range	T_J	-55 to + 125	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C



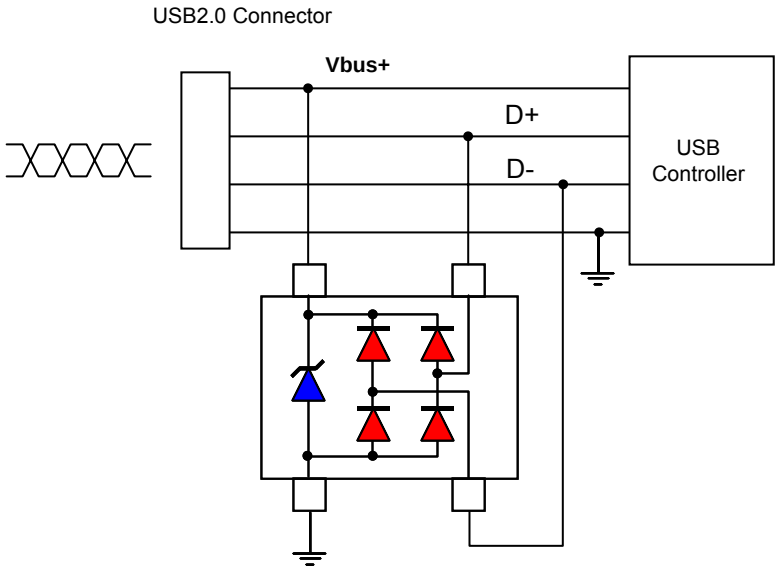
PJSR05TB4 SERIES

ELECTRICAL CHARACTERISTICS(T_J=25°C) unless otherwise noted

PJSR05TB4 Marking R5						
Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR}=1mA	6.2	-	-	V
Reverse Leakage Current	I_R	V_R=5V	-	-	1	μA
Clamping Voltage (8/20μs)	V_C	I_{PP}=1A	-	-	9	V
Clamping Voltage (8/20μs)	V_C	I_{PP}=5A	-	-	12	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between I/O pins and GND	-	0.9	1.2	pF
Off State Junction Capacitance	C_J	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_{RWM}		-	-	12	V
Reverse Breakdown Voltage	V_{BR}	I_{BR}=1mA	13.3	-	-	V
Reverse Leakage Current	I_R	V_R=12V	-	-	1	μA
Clamping Voltage (8/20μs)	V_C	I_{PP}=1A	-	-	18	V
Clamping Voltage (8/20μs)	V_C	I_{PP}=5A	-	-	22	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between I/O pins and GND	-	0.9	1.2	pF
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between I/O pins	-	0.5	0.6	pF

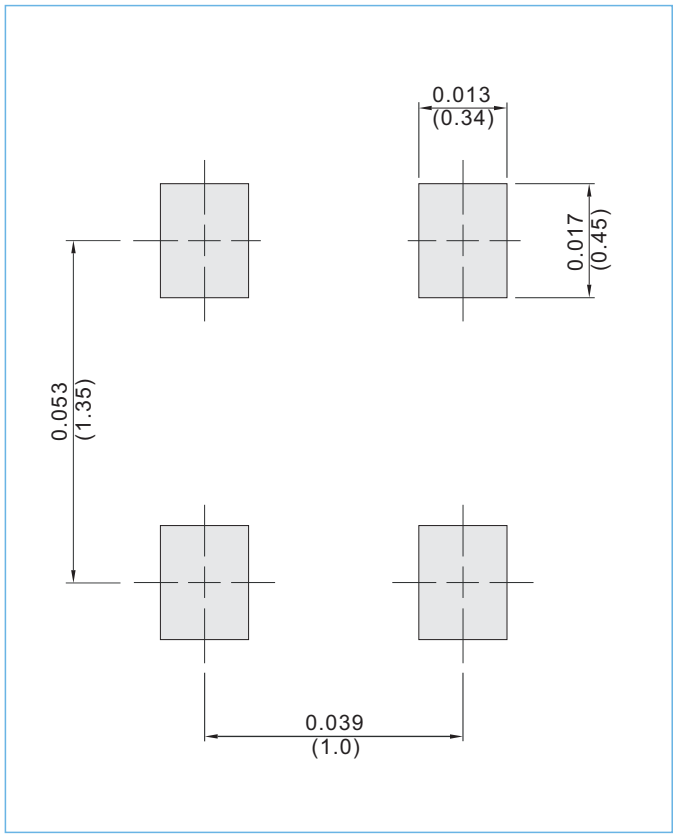
APPLICATION EXAMPLE



PJSR05TB4 SERIES

MOUNTING PAD LAYOUT

SOT-543 Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 4K per 7" plastic Reel

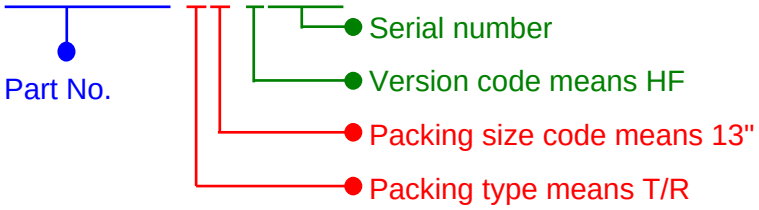
  T/R - 10K per 13" plastic Reel

LEGAL STATEMENT

PJSR05TB4 SERIES

For example :

RB500V-40_R2_00001



Part No_packing code_Version

PJSR05TB4_R1_00001
PJSR05TB4_R1_10001
PJSR05TB4_R2_00001
PJSR05TB4_R2_10001

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			