PJSRV05W-4LC

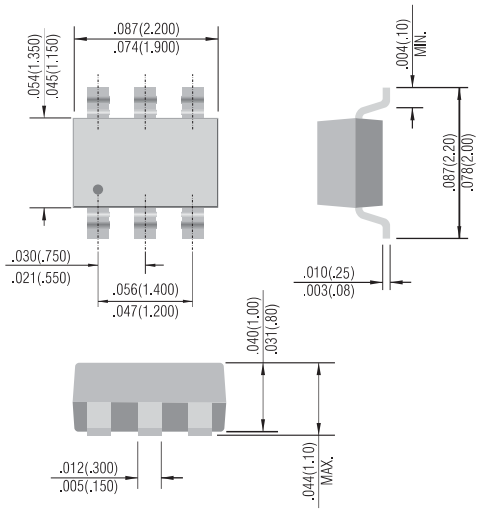
LOW CAPACITANCE TVS DIODE ARRAY

The PJSRV05W-4LC has a low typical capacitance of 0.8pF and operates with virtually no insertion loss to 1GHz.This makes the device ideal for protection of high-speed data lines such as USB2.0,Firewire,DVI,and Gigabit Ethernet interfaces.
The low capacitance array configuration allows the user to protect four high-speed data or transmission lines.The low inductance construction minimizes voltage overshoor during high current surge.

FEATURES

- IEC61000-4-2 ESD 15kV Air,8kV Contact compliance
- Low leakage current,maximum of 1μA at rated voltage
- Low clamping voltage
- Peak power dissipation of 150W under 8/20μs waveform
- Protect four I/O lines.
- Molded JEDEC SOT-363 package
- In compliance with EU RoHS 2002/95/EC directives

SOT-363 Unit: inch (mm)



MECHANICAL DATA

- Case: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: approximately 0.006 gram
- Marking : KC

APPLICATIONS

- USB 2.0 Power and Data Line Protection
- Video Graphics Cards
- Mouitors and Flat Panel Displays
- Digital Vedio Interface (DVI)
- 10/100/1000 Ethernet
- ATM Interfaces

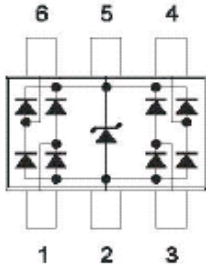


Fig.70

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20μs waveform)	P_{PP}	150	W
Peak Pulse Current (8/20μs waveform)	I_{PPM}	6	A
ESD Voltage (HBM Contact)	V_{ESD}	>8	kV
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS (T_J=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{WRM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR}=1mA, PIN 5 to 2	6	-	-	V
Reverse Leakage Current	I_R	V_R=5V, PIN 5 to 2	-	1	3	µA
Clamping Voltage (8/20µs)	V_C	I_{PP}=1A,Any I/O pin to pin 2	-	-	15	V
Clamping Voltage (8/20µs)	V_C	I_{PP}=6A,Any I/O pin to pin 2	-	-	25	V
Off State Junction Capacitance	C_J	0 Vdc,f=1MHz between I/O lines and GND	-	-	1	pF
Off State Junction Capacitance	C_J	0 Vdc,f=1MHz between I/O lines	-	-	0.5	pF

TYPICAL CHARACTERISTICS CURVES

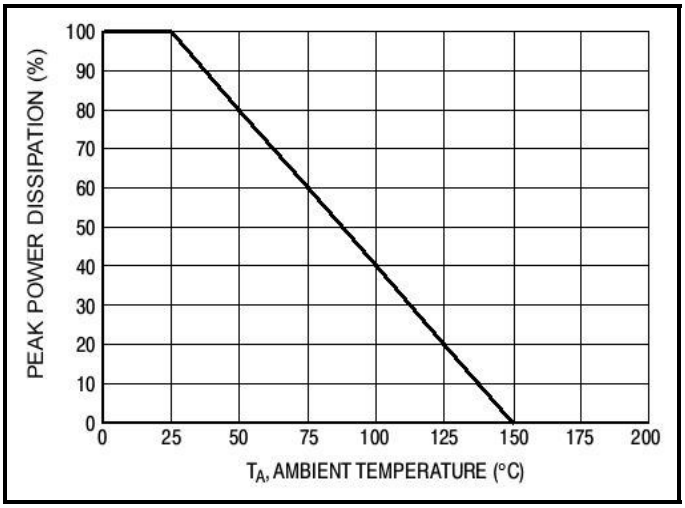

Figure 1. Power Derating Curve

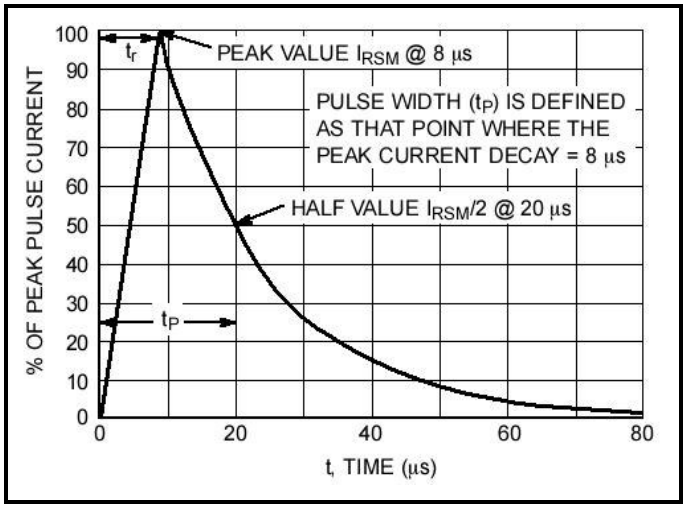

Figure 2. 8x20us Pulse Waveform

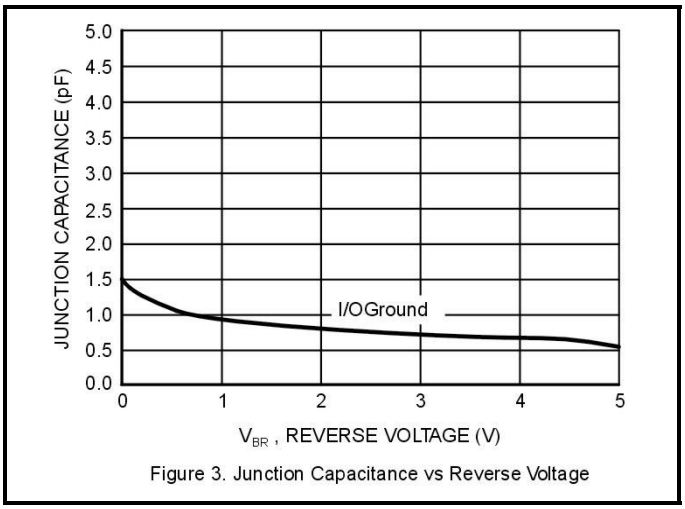

Figure 3. Junction Capacitance vs Reverse Voltage

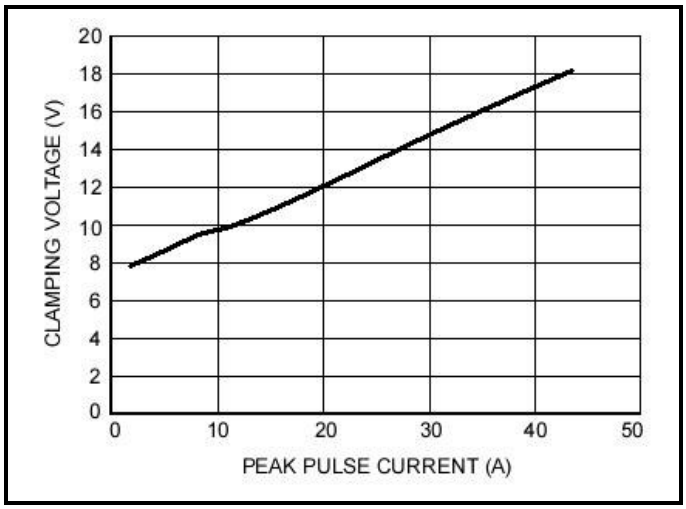

Figure 4. Clamping Voltage vs Peak Pulse Current (8x20 Waveform)

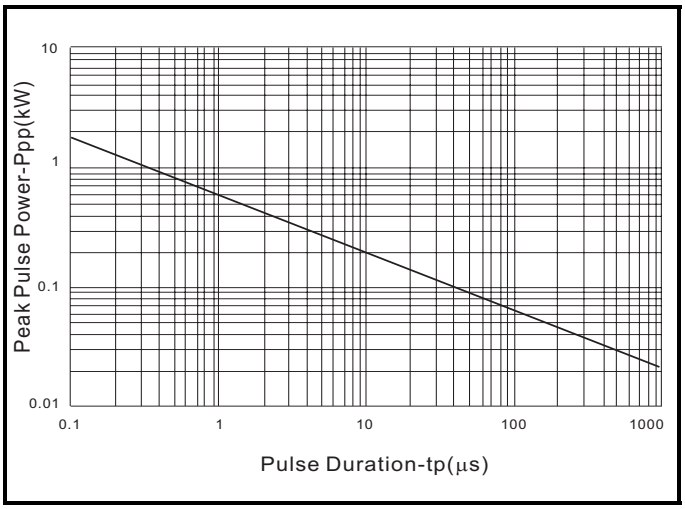

Figure 5. Non-Repetitive Peak Pulse vs. Pulse Time

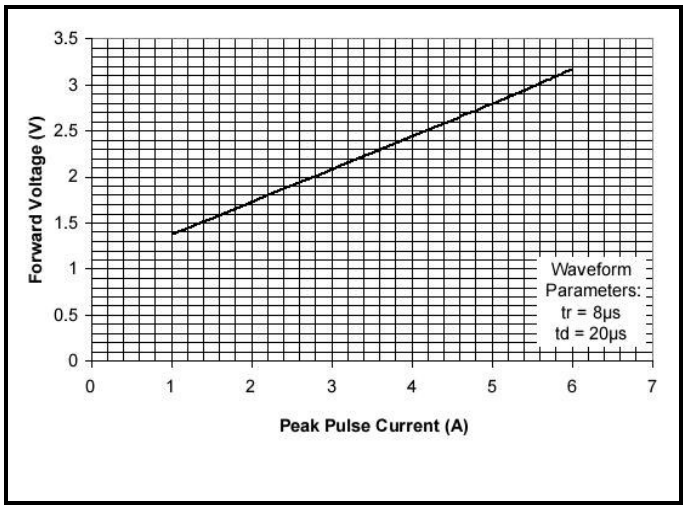

Figure 6. Forward Voltage vs. Forward Current

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MOUNTING PAD LAYOUT

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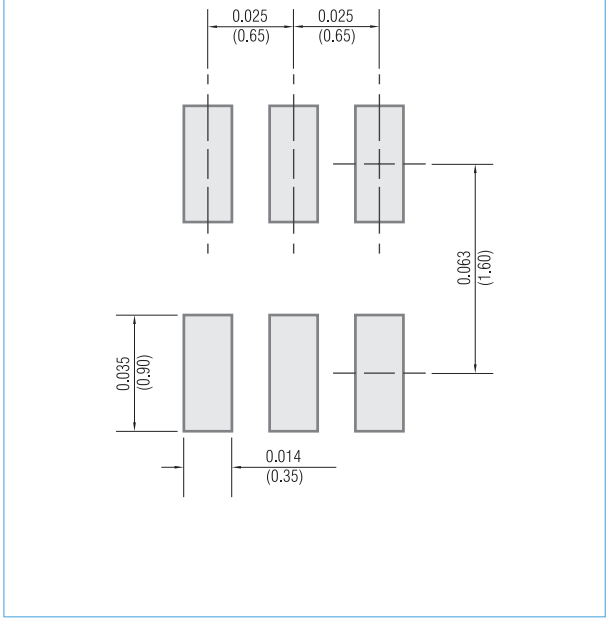

ORDER INFORMATION

- Packing information

  T/R - 10K per 13" plastic Reel

  T/R - 3K per 7" plastic Reel

LEGAL STATEMENT