



PJSRV05W-4

LOW CAPACITANCE TVS DIODE ARRAY

The PJSRV05W-4 has a low typical capacitance of 1.8pF 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 overshoot during high current surge.

FEATURES

- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Low leakage current, maximum of 0.5μA 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

MECHANICAL DATA

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

APPLICATIONS

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

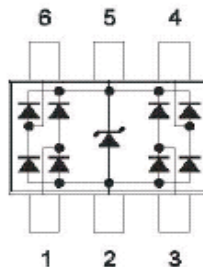
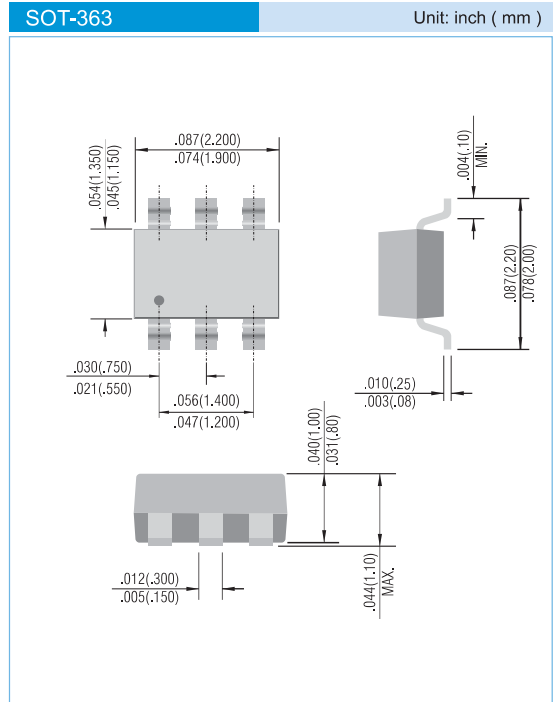


Fig.70



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	-	-	2	pF
Off State Junction Capacitance	C _J	0 Vdc, f=1MHz between I/O lines	-	-	1	pF



TYPICAL CHARACTERISTICS CURVES

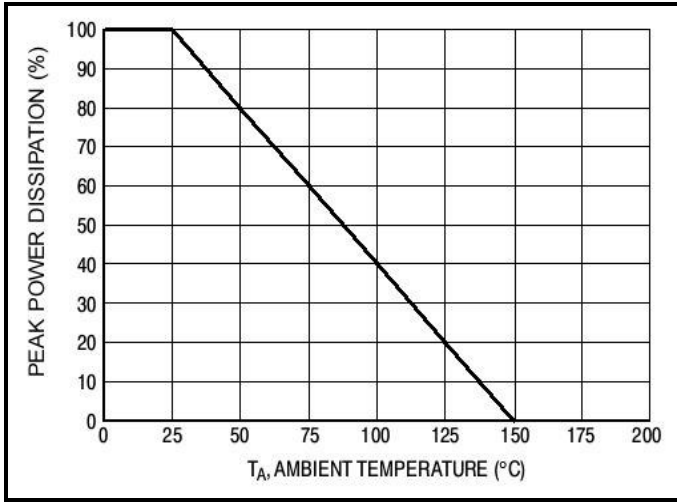


Figure 1. Power Derating Curve

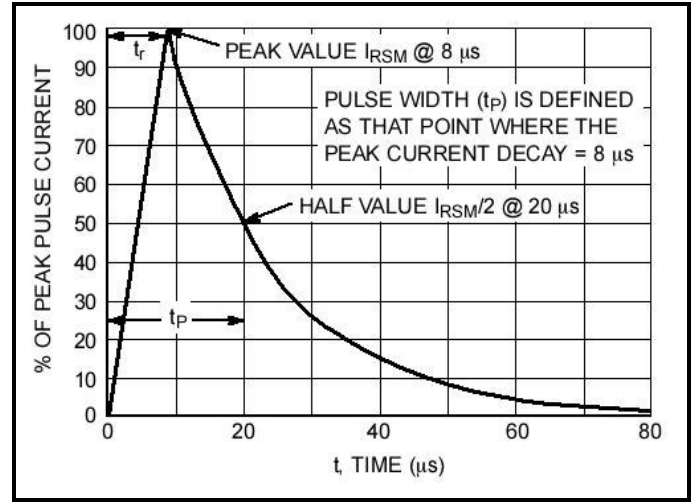


Figure 2. 8x20us Pulse Waveform

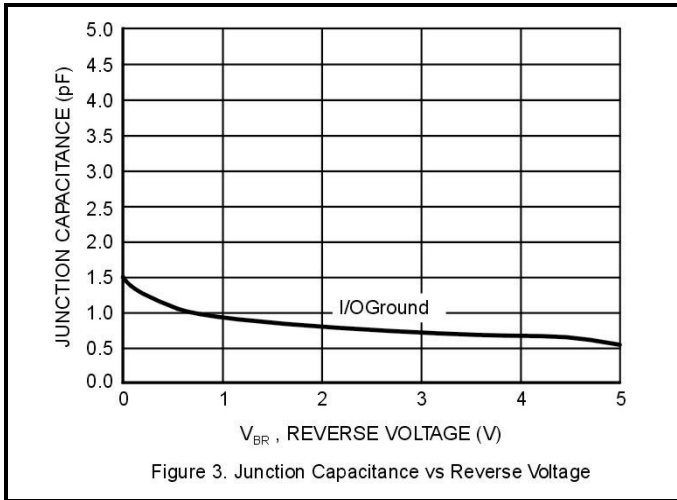


Figure 3. Junction Capacitance vs Reverse Voltage

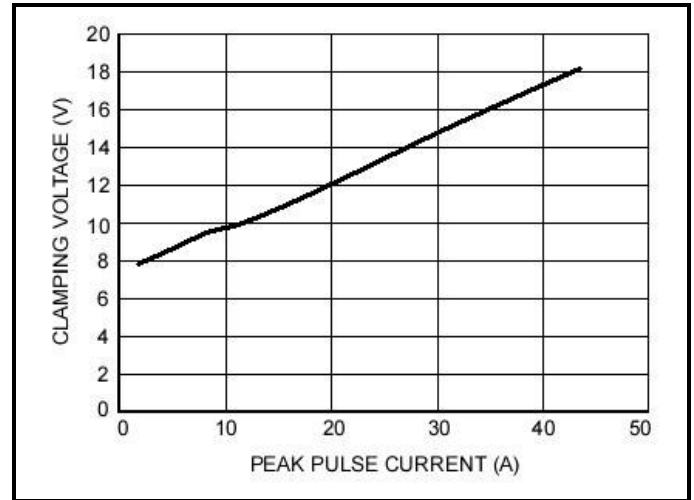


Figure 4. Clamping Voltage vs Peak Pulse Current (8x20 Waveform)

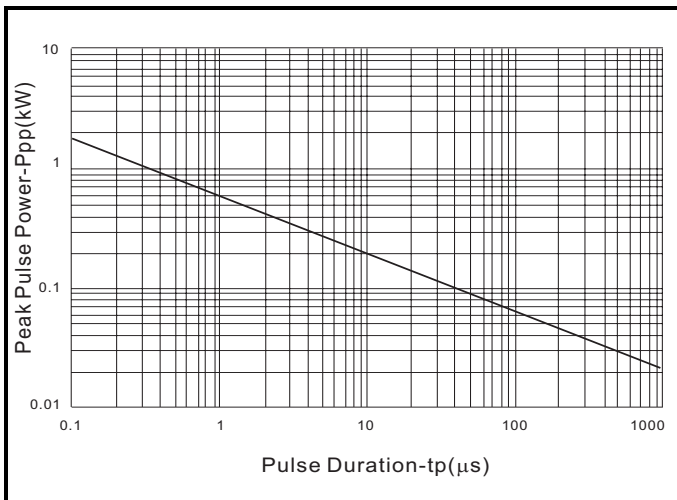


Figure 5. Non-Repetitive Peak Pulse vs. Pulse Time

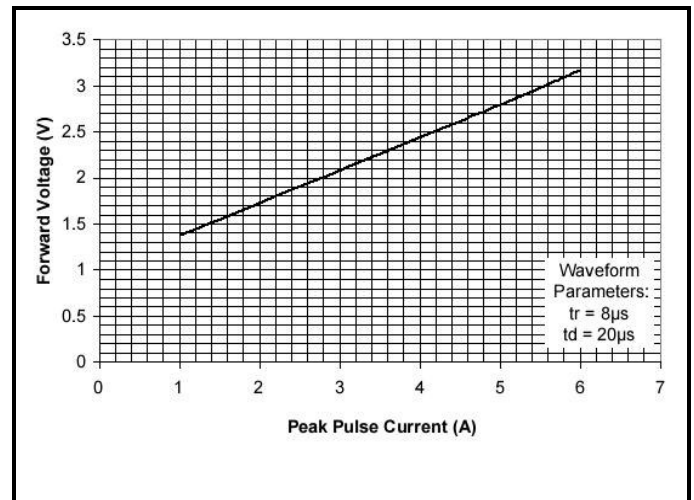
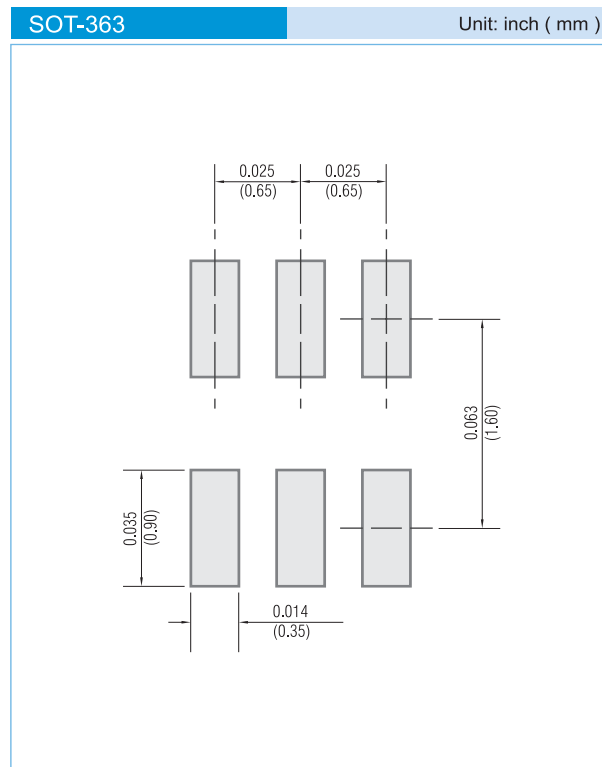


Figure 6. Forward Voltage vs. Forward Current



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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