



#### 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
- · Low clamping voltage
- Peak power dissipation of 150W under 8/20 μs waveform
- · Protect four I/O lines
- · Molded JEDEC SOT-363 package
- · Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

- · Case: SOT-363. Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- · Weight: approximately 0.0002 ounces, 0.006 grams
- · Marking : KW

#### **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

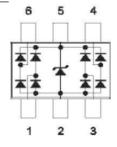


Fig.70

## **SOT-363** Unit: inch(mm) 0.087(2.20) 0.074(1.90) 0.010(0.25) 0.087(2.20) 0.054(1.35) 0.045(1.15) 0.030(0.75) 0.010(0.25) 0.021(0.55) 0.040(1.00) 0.056(1.40) 0.003(0.08) 0.047(1.20) 0.044(1.10) 0.012(0.30) 0.005(0.15)

### ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise noted)

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20μs waveform)	Ррр	50	W
Peak Pulse Current (8/20μs waveform)	I ррм	5	Α
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	Vesd	± 8 ±15	kV
Operating Junction Temperature and Storage Temperature Range	Тл,Тѕтс	-55 to +150	°C

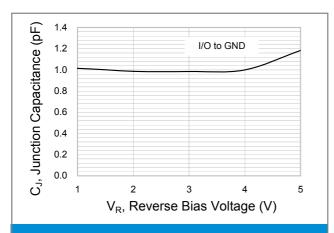




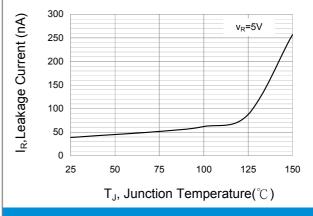
### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage	VRWM		-	-	5	V
Reverse Breakdown Voltage	VBR	I <sub>BR</sub> =1mA, PIN 5 to 2	6	-	8	V
Reverse Leakage Current	IR	V <sub>R</sub> =5V, PIN 5 to 2	-	-	3	μΑ
Clamping Voltage (8/20μs)	Vc	I PP=1A,Any I/O pin to pin 2	-	-	8	V
Clamping Voltage (8/20µs)	Vc	I PP=5A,Any I/O pin to pin 2	-	-	10	V
Off State Junction Capacitance	Cı	0 Vdc,f=1MHz between I/O lines and GND	-	1	1.2	pF
Off State Junction Capacitance	Сл	0 Vdc,f=1MHz between VO lines	-	0.5	0.6	pF

#### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Typical Junction Capacitance** 



**Fig.2 Typical Reverse Characteristics** 

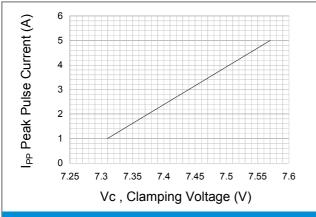


Fig.3 Typical Peak Clamping Voltage(8/20µs)

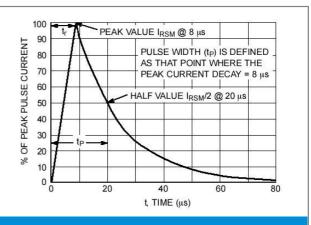
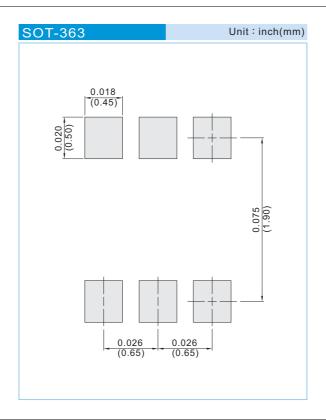


Fig.4 8/20µS Peak Pulse Current Waveform





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 10K per 13" plastic Reel

T/R - 3K per 7" plastic Reel

#### **LEGAL STATEMENT**

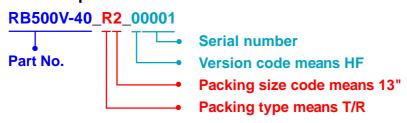
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## For example:



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

## Part No\_packing code\_Version

PJSRV05W-4DW\_R1\_00001 PJSRV05W-4DW\_R2\_00001 PJSRV05W-4DW\_00001