



# PJSRV05W-4DW

## 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 overshoot 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  $\mu$ s 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
- Monitors and Flat Panel Displays
- Digital Video Interface (DVI)
- 10/100/1000 Ethernet
- ATM Interfaces

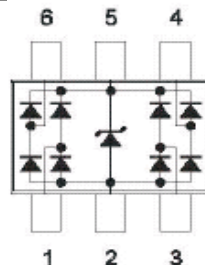
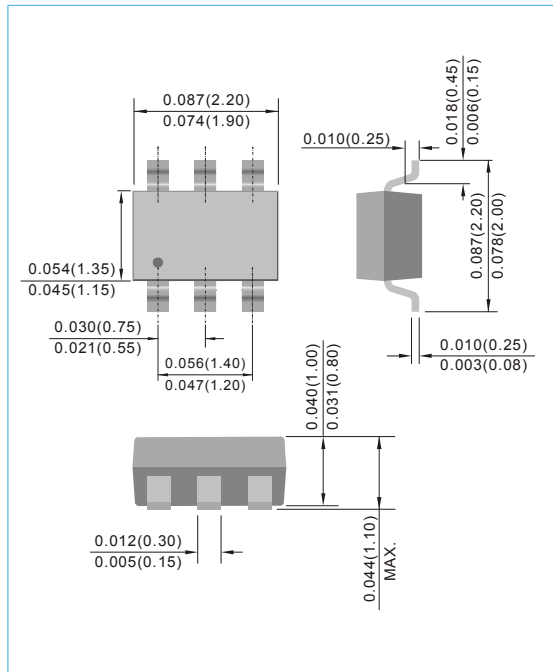


Fig.70

### SOT-363

Unit : inch(mm)



### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20 $\mu$ s waveform)	P <sub>PP</sub>	50	W
Peak Pulse Current (8/20 $\mu$ s waveform)	I <sub>PPM</sub>	5	A
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	V <sub>ESD</sub>	$\pm 8$ $\pm 15$	kV
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

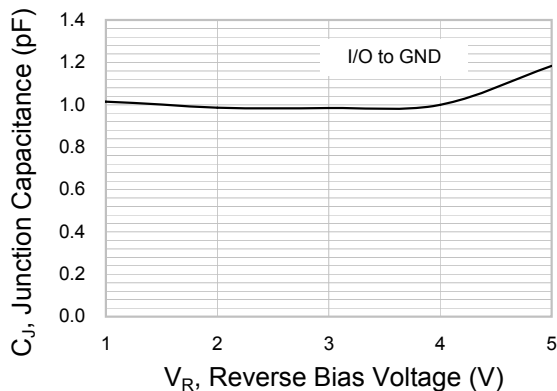


# PJSRV05W-4DW

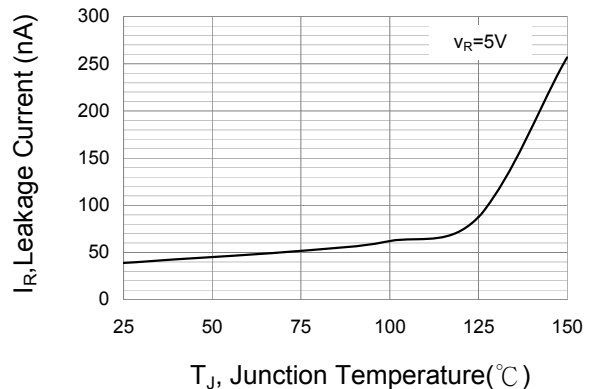
## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$		-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1\text{mA}$ , PIN 5 to 2	6	-	8	V
Reverse Leakage Current	$I_R$	$V_R=5\text{V}$ , PIN 5 to 2	-	-	3	$\mu\text{A}$
Clamping Voltage (8/20 $\mu\text{s}$ )	$V_C$	$I_{PP}=1\text{A}$ , Any I/O pin to pin 2	-	-	8	V
Clamping Voltage (8/20 $\mu\text{s}$ )	$V_C$	$I_{PP}=5\text{A}$ , Any I/O pin to pin 2	-	-	10	V
Off State Junction Capacitance	$C_J$	0 Vdc, f=1MHz between I/O lines and GND	-	1	1.2	pF
Off State Junction Capacitance	$C_J$	0 Vdc, f=1MHz between I/O lines	-	0.5	0.6	pF

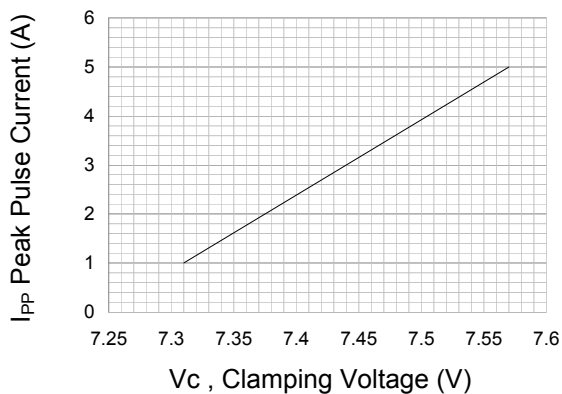
### RATING AND CHARACTERISTIC CURVES



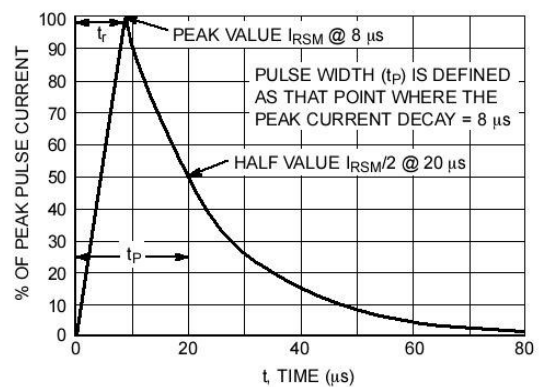
**Fig.1 Typical Junction Capacitance**



**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Peak Clamping Voltage(8/20 $\mu\text{s}$ )**

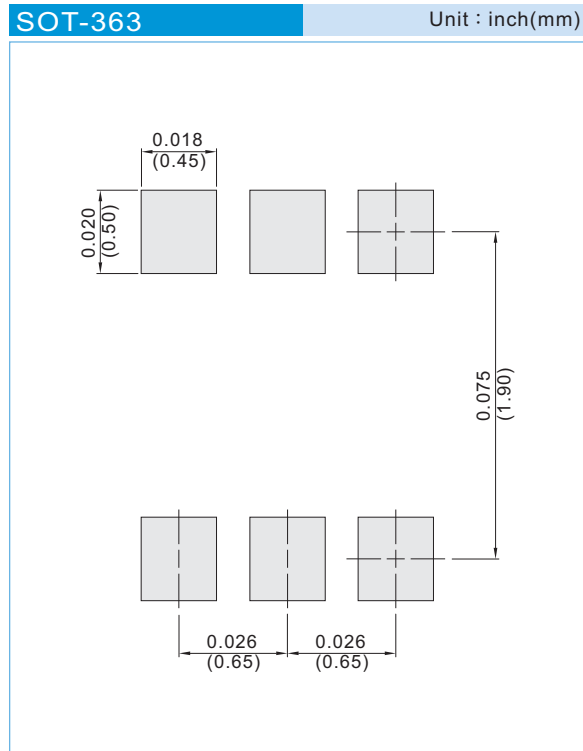


**Fig.4 8/20 $\mu\text{s}$  Peak Pulse Current Waveform**



# PJSRV05W-4DW

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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

## LEGAL STATEMENT

### Copyright PanJit International, Inc 2012

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.



## PJSRV05W-4DW

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
T/R	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
B/P	<b>B</b>	13"	<b>2</b>			
T/P	<b>T</b>	26mm	<b>X</b>			
TRR	<b>S</b>	52mm	<b>Y</b>			
TRL	<b>L</b>	PBCU	<b>U</b>			
FORMING	<b>F</b>	PBCD	<b>D</b>			

### Part No\_packing code\_Version

PJSRV05W-4DW\_R1\_00001

PJSRV05W-4DW\_R2\_00001

PJSRV05W-4DW\_00001