



# PJSRV05W-4GDW

## Low Capacitance TVS/ESD Protection

**V<sub>RWM</sub>**

**5 V**

### Features

- IEC61000-4-2(ESD): ±30kV Air, ±30kV Contact Compliance
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 10A(8/20μS)
- Low leakage current, maximum 1μA at rated voltage
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std.  
(Halogen Free)

### Mechanical Data

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

### Applications

- USB2.0 Data Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays Notebook computers
- Digital Video Interface(DVI)
- 10/100/1000 Ethernet
- ATM Interfaces
- Control Signal Lines Protection

**SOT-363**

Unit : inch(mm)

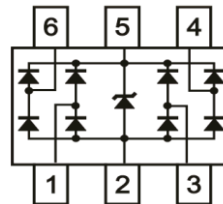
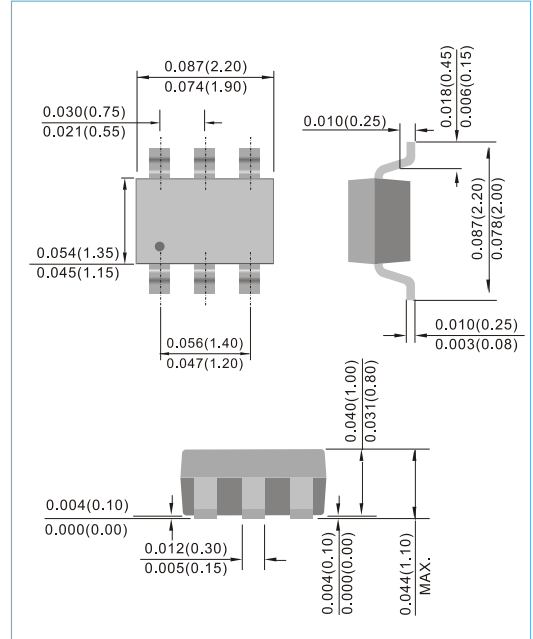


Fig.70(Top View)

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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	$V_{\text{ESD}}$	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Operating Junction Temperature	$T_J$	-55 to +125	°C
Storage Temperature Range	$T_{\text{STG}}$	-55 to +150	°C



## PJSRV05W-4GDW

Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage <sup>(Note 1)</sup>	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1\text{mA}$ , PIN 5 to GND	6	-	8.5	V
Reverse leakage current	$I_R$	$V_R=5\text{V}$ , PIN 5 to GND	-	-	1	$\mu\text{A}$
Clamping Voltage	$V_{CL}$	$I_{PP}=1\text{A}$ , $t_P=8/20\mu\text{s}$ , any I/O pin to GND	-	-	8	V
		$I_{PP}=10\text{A}$ , $t_P=8/20\mu\text{s}$ , any I/O pin to GND	-	-	12	
Clamping Voltage TLP <sup>(Note 2)</sup>	$V_{CL}$	$I_{PP}=4\text{A}$ , $t_P=100\text{ns}$ , any I/O pin to GND	-	12	-	V
		$I_{PP}=8\text{A}$ , $t_P=100\text{ns}$ , any I/O pin to GND	-	17	-	
Dynamic Resistance <sup>(Note 2)</sup>	$R_{DYN}$	$t_P=100\text{ns}$	-	0.8	-	$\Omega$
Off State Junction Capacitance	$C_J$	0Vdc Bias $f=1\text{MHz}$ , Between any I/O pins to GND	-	1.6	2	pF
		0Vdc Bias $f=1\text{MHz}$ , Between any I/O pins	-	0.8	1	

**NOTES :**

1. A transient suppressor is selected according to the working peak reverse voltage( $V_{RWM}$ ), Which should be equal to or greater than the DC or continuous peak operation voltage level.
2. Testing using Transmission Line Pulse (TLP) conditions:  $Z_0 = 50\Omega$  ,  $t_P = 100\text{ ns}$ .



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## TYPICAL CHARACTERISTIC CURVES

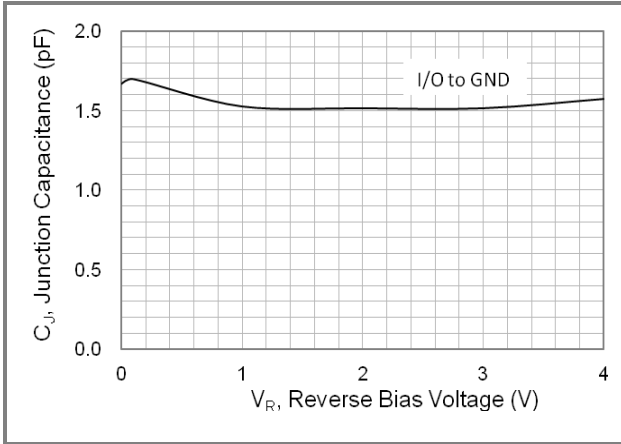


Fig.1 Typical Junction Capacitance

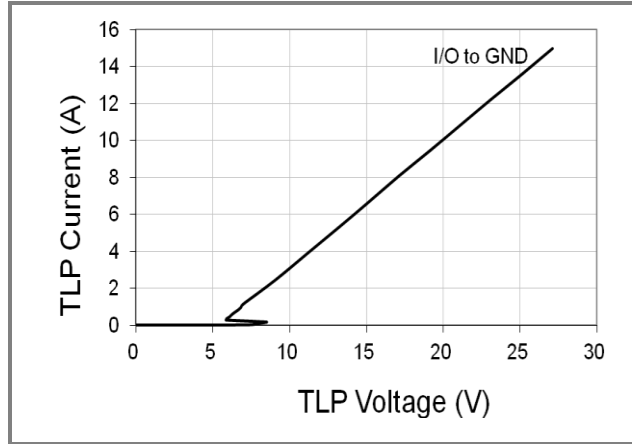


Fig2 Transmission Line Pulsing (TLP) Measurement

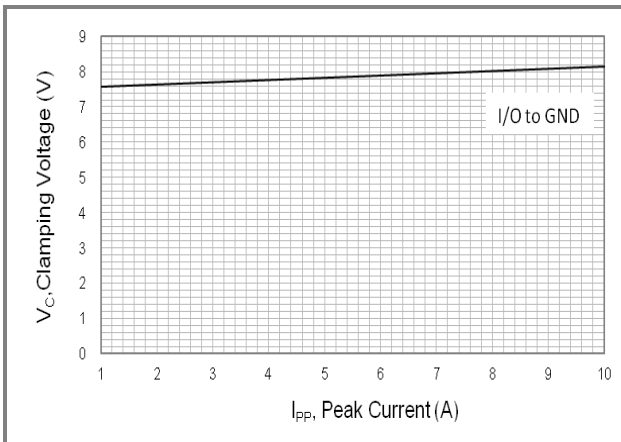


Fig.3 Typical Peak Clamping Voltage(8/20 $\mu$ s)

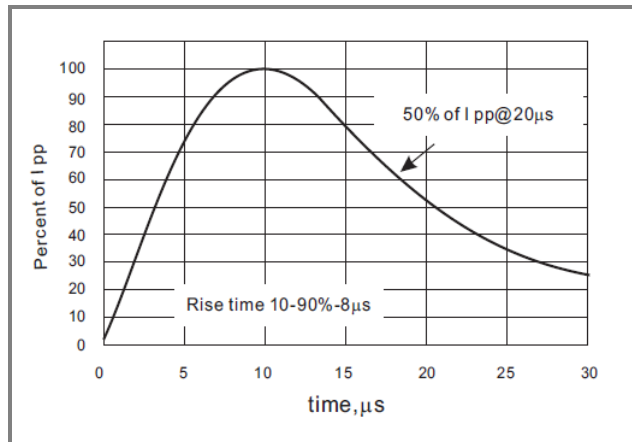


Fig.4 8/20 $\mu$ s Pulse Waveform

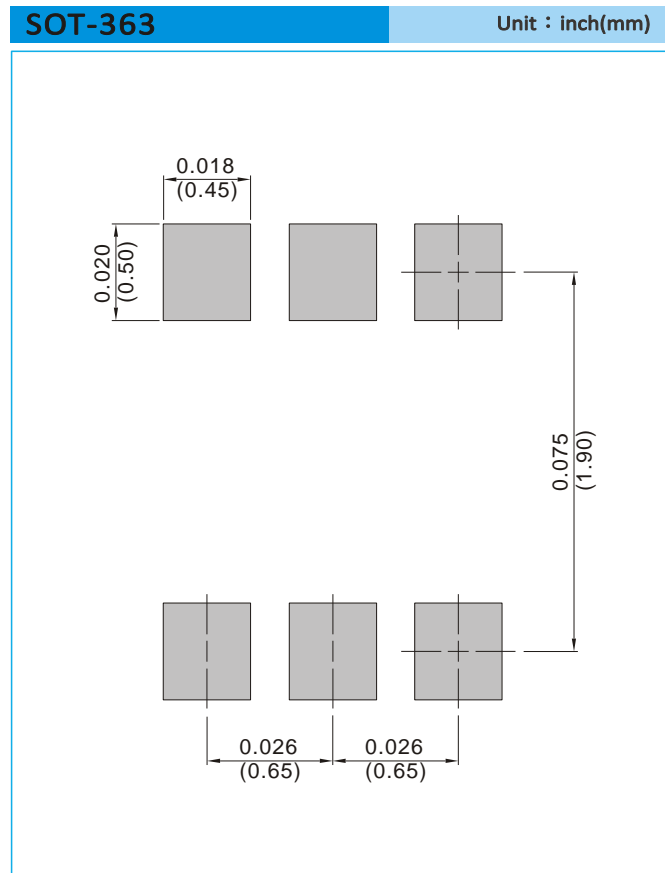


# PJSRV05W-4GDW

## PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing type	Marking	Version
PJSRV05W-4GDW_R1_00001	SOT-363	3K pcs / 7" reel	KG	Halogen free
PJSRV05W-4GDW_R2_00001	SOT-363	10K pcs / 13" reel	KG	Halogen free

## MOUNTING PAD LAYOUT





## PJSRV05W-4GDW

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