5 V

## Low Capacitance TVS/ESD Protection

V<sub>RWM</sub>

CONDUCTOR

#### Features

PAN

- 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  $1\mu A$  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

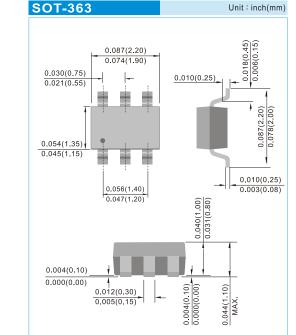
- Case: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams
- Marking: KG

#### 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

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	N/	±30	kV
ESD IEC61000-4-2(Contact)	V <sub>ESD</sub>	±30	
Operating Junction Temperature	ΤJ	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C



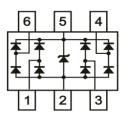


Fig.70(Top View)





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

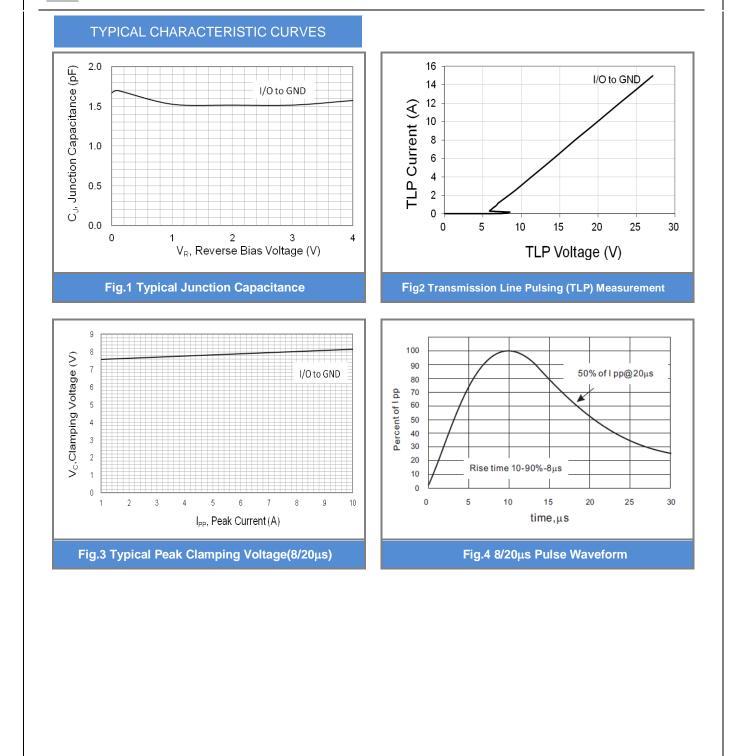
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage (Note 1)	V <sub>RWM</sub>	-	-	-	5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA, PIN 5 to GND	6	-	8.5	V
Reverse leakage current	I <sub>R</sub>	V <sub>R</sub> =5V, PIN 5 to GND	-	-	1	μA
Clamping Voltage	V <sub>CL</sub>	I <sub>PP</sub> =1A, t <sub>P</sub> =8/20μs, any I/O pin to GND	-	-	8	~ ~
		I <sub>PP</sub> =10A, t <sub>P</sub> =8/20μs, any I/O pin to GND	-	-	12	
Clamping Voltage TLP <sup>(Note 2)</sup>	V <sub>CL</sub>	I <sub>PP</sub> =4A, t <sub>P</sub> =100ns, any I/O pin to GND	-	12	-	V
		I <sub>PP</sub> =8A, t <sub>P</sub> =100ns, any I/O pin to GND	-	17	-	
Dynamic Resistance <sup>(Note 2)</sup>	$R_{DYN}$	t <sub>P</sub> =100ns	-	0.8	-	Ω
Off State Junction Capacitance	CJ	0Vdc Bias f=1MHz, Between any I/O pins to GND	-	1.6	2	pF
		0Vdc Bias f=1MHz, Between any I/O pins	-	0.8	1	

NOTES :

1. A transient suppressor is selected according to the working peak reverse voltage(V<sub>RWM</sub>), Which should be equal to or greater than the DC or continuous peak operation voltage level.

2. Testing using Transmission Line Pulse (TLP) conditions:  $Z_0 = 50\Omega$  ,  $t_P = 100$  ns.









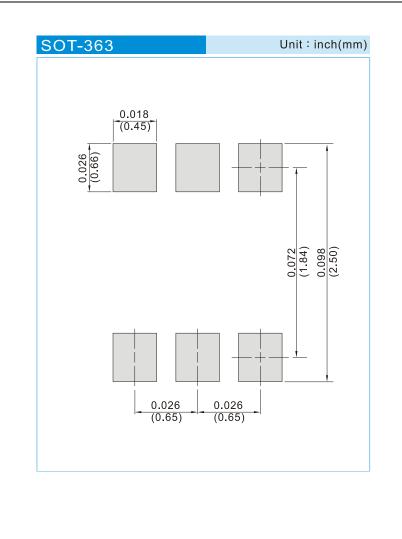




#### PART NO PACKING CODE VERSION

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





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