



PJSRV05W-4GDW

Low Capacitance TVS/ESD Protection

V_{RWM}

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)

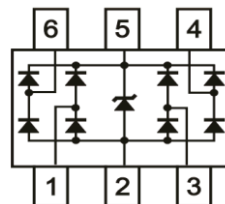
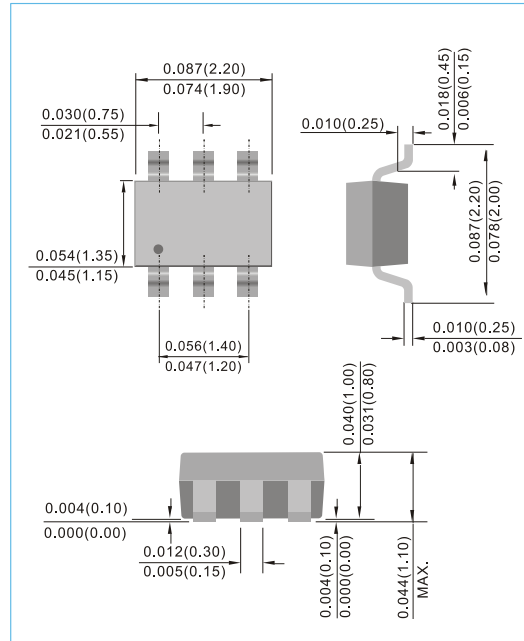


Fig.70(Top View)

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

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



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

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|---|-----------|---|------|------|------|---------------|
| Reverse Stand-Off Voltage ^(Note 1) | 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 | μA |
| 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 ^(Note 2) | 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 ^(Note 2) | R_{DYN} | $t_P=100\text{ns}$ | - | 0.8 | - | Ω |
| 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

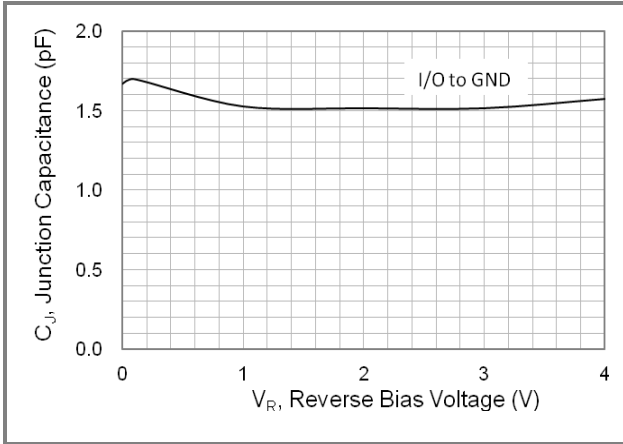


Fig.1 Typical Junction Capacitance

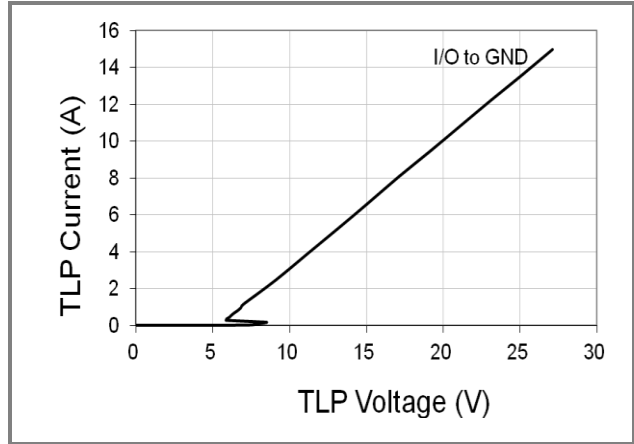


Fig.2 Transmission Line Pulsing (TLP) Measurement

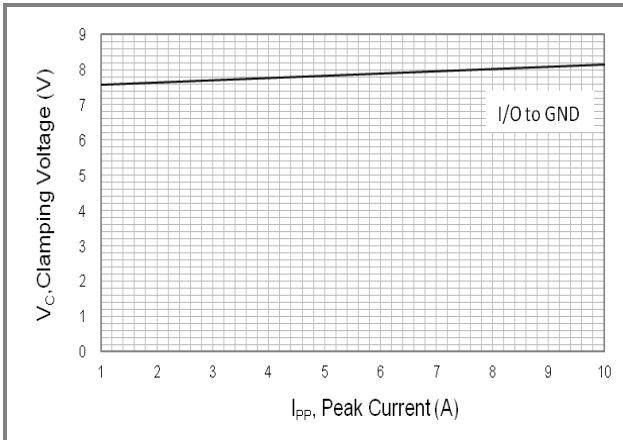


Fig.3 Typical Peak Clamping Voltage(8/20µs)

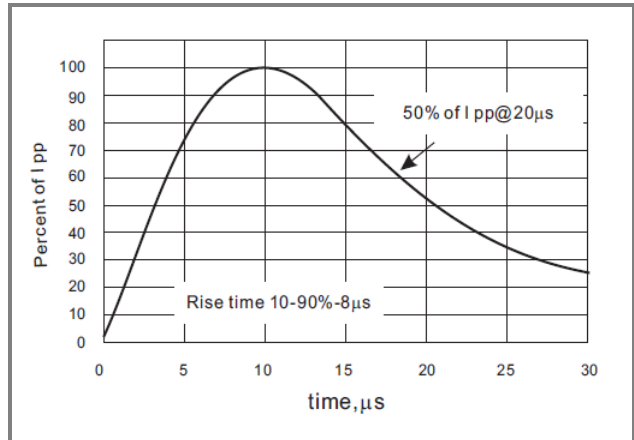


Fig.4 8/20µs Pulse Waveform

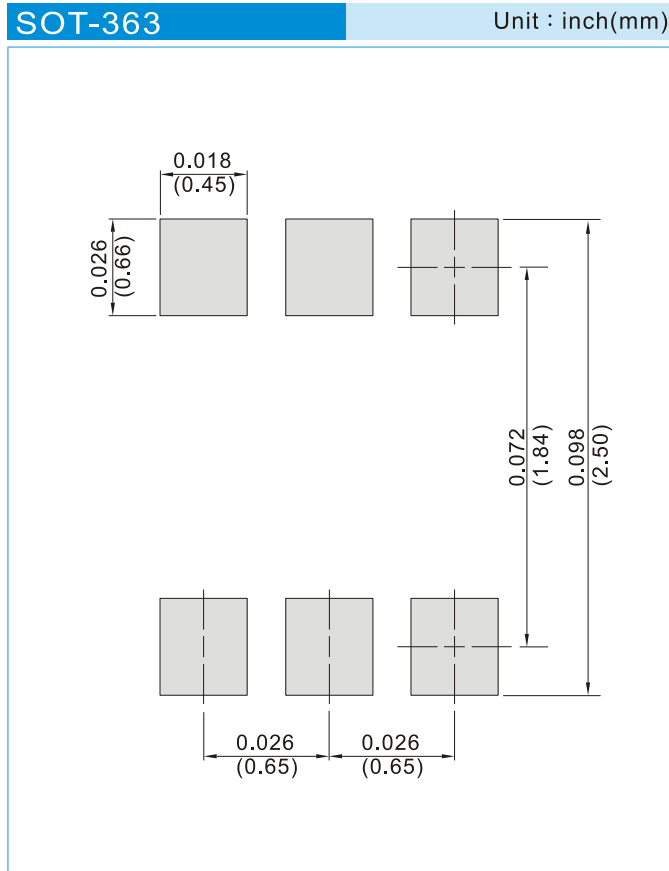


PJSRV05W-4GDW

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





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