



PJEC5V0M1TM

Low Capacitance ESD Protection

V_{RWM}

5 V

Features

- Bidirectional ESD protection of one line
- IEC61000-4-2(ESD): ±15kV Air, ±8kV Contact Compliance with the capability up to ±30kV
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 3.5A(8/20μS)
- Low leakage current, maximum of 0.1μA 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: SOD-923, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00002 ounces, 0.0004 grams
- Marking: N

Applications

- Mobile Phones and accessories
- Desktops, Servers and Notebook
- Hand held portable
- Digital Cameras
- Computer Interfaces Protection
- Serial and Parallel Ports Protection
- Control Signal Lines Protection

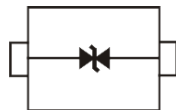
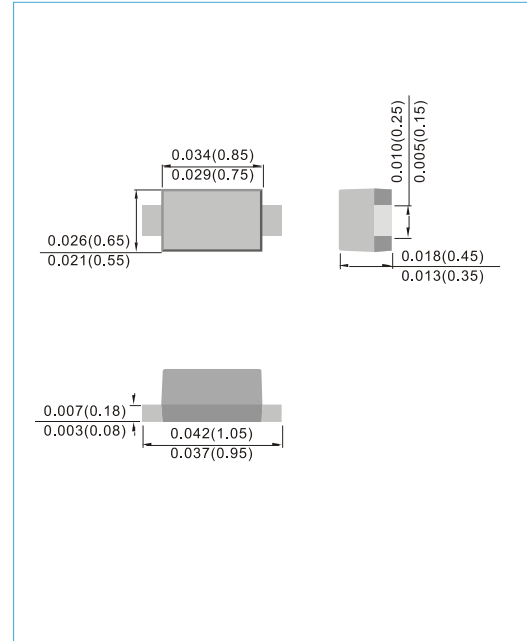


Fig.138(Top View)

SOD-923

Unit : inch(mm)



Maximum Ratings (T_A=25°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 | V_{RWM} | - | - | - | 5 | V |
| Snap-Break Voltage | V_{SB} | $I_{SB}=50\text{mA}$ | 5 | - | 8 | V |
| Reverse leakage current | I_R | $V_R=5.0\text{V}$ | - | - | 0.1 | μA |
| Clamping Voltage | V_{CL} | $I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$ | - | - | 9 | V |
| | | $I_{PP}=3.5\text{A}, t_p=8/20\mu\text{s}$ | - | - | 12.5 | |
| Clamping Voltage TLP ^(Note 1) | V_{CL} | $I_{PP}=4\text{A}, t_p=100\text{ns}$ | - | 8.6 | - | V |
| | | $I_{PP}=8\text{A}, t_p=100\text{ns}$ | - | 9.7 | - | |
| Dynamic Resistance | R_{DYN} | $t_p=100\text{ns}$ | - | 0.27 | - | Ω |
| Off State Junction Capacitance | C_J | 0Vdc Bias $f=1\text{MHz}$ | - | - | 15 | pF |

NOTES :

1. Testing using Transmission Line Pulse (TLP) conditions: $Z_0 = 50\Omega$, $t_p = 100\text{ ns}$.



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TYPICAL CHARACTERISTIC CURVES

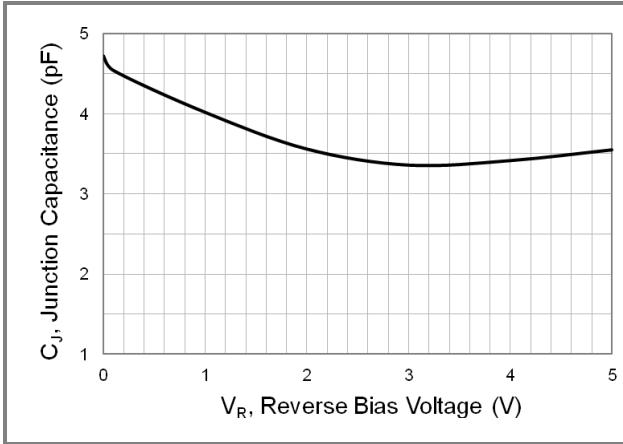


Fig.1 Typical Junction Capacitance

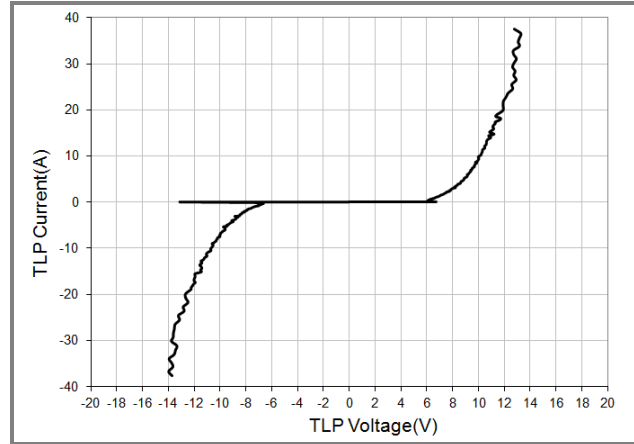


Fig.2 Transmission Line Pulsing (TLP) Measurement

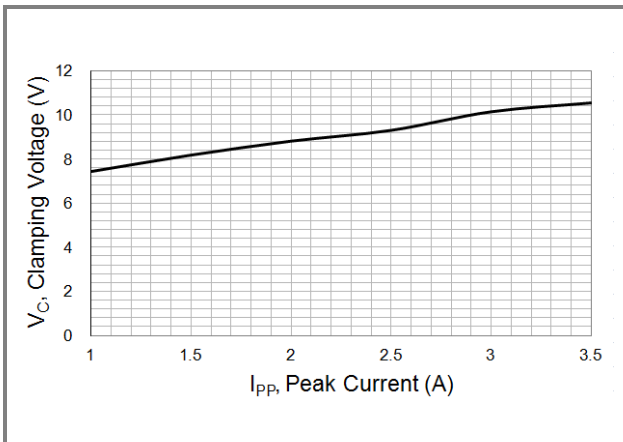


Fig.3 Typical Peak Clamping Voltage(8/20 μ s)

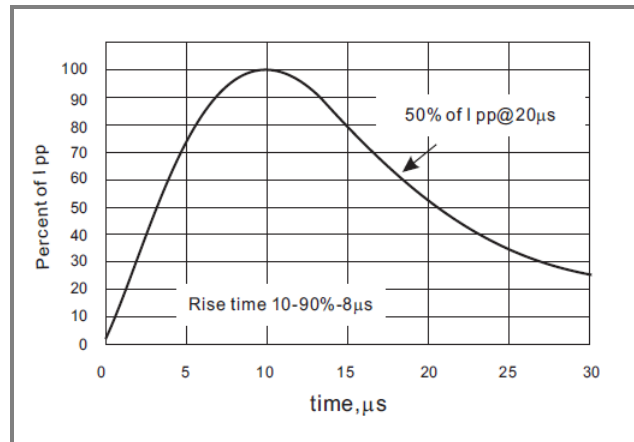
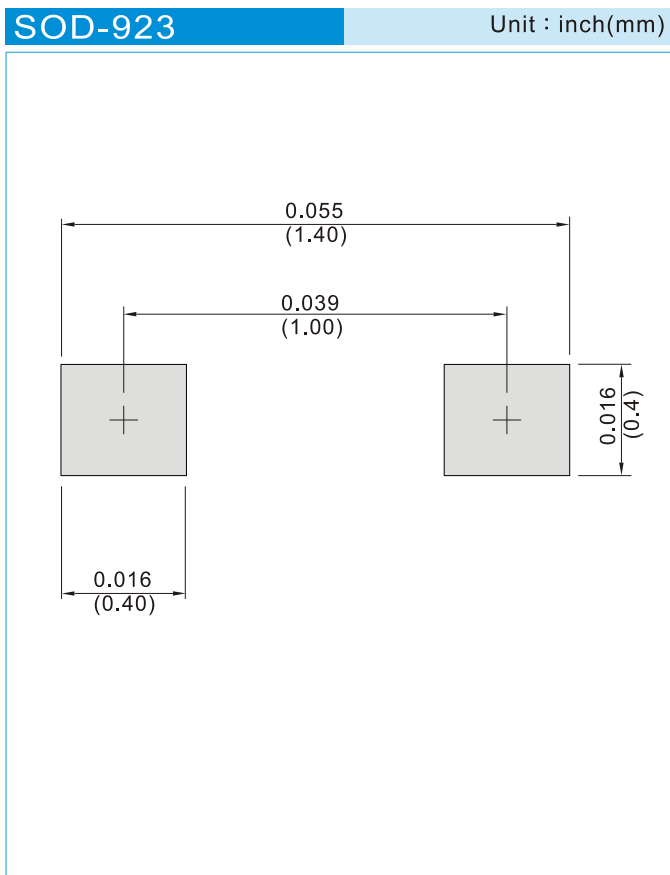


Fig.4 8/20 μ s Pulse Waveform



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R – 8K per 7" plastic Reel



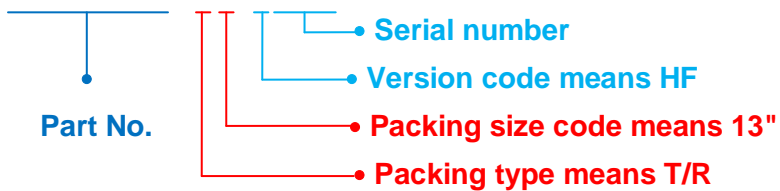
PJEC5V0M1TM

Part No_packing code_Version

PJEC5V0M1TM_R1_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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