



PJSD03W~PJSD36W

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

VOLTAGE 3~36 Volts **POWER** 320 Watts

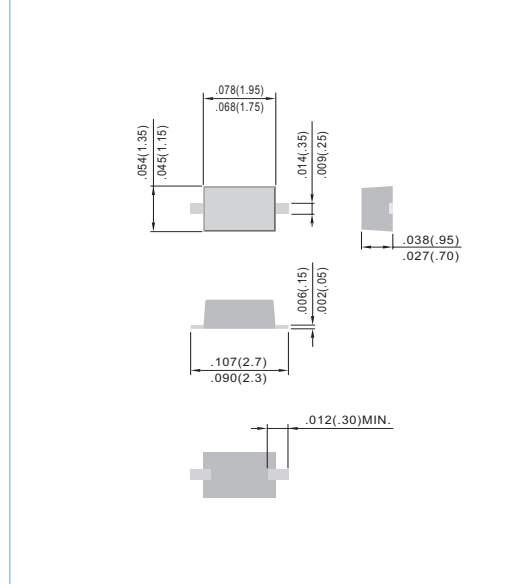
SOD-323 Unit: inch (mm)

FEATURES

- 320 Watts peak pulses power($t_p=8/20\mu s$)
- Small package for use in portable electronics
- Suitable replacement for MLV'S in ESD protection applications
- Low clamping voltage and leakage current
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

APPLICATIONS

- Case: SOD-323 plastic
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx Weight: 0.0041 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATING

| Rating | Symbol | Value | Units |
|---------------------------------------|-----------|-----------------|-------|
| Peak Pulse Power ($t_p=8/20 \mu s$) | P_{PK} | 320 | W |
| ESD Voltage | V_{ESD} | 25 | KV |
| Operating Temperature | T_J | -50°C to 150 °C | °C |
| Storage Temperature | T_{STG} | -50°C to 150 °C | °C |

ELECTRICAL CHARACTERISTICS

| PJSD03W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 3.3 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 4 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=3.3V$ | - | - | 125 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=1A$ | - | - | 6.5 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 450 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 150 | - | pF |



PJSD03W~PJSD36W

| PJSD05W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 6 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=5V$ | - | - | 10 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{pp}=1A$ | - | - | 9.8 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 300 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 100 | - | pF |

| PJSD08W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 8 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 8.5 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=8V$ | - | - | 10 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{pp}=1A$ | - | - | 13.4 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 150 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 80 | - | pF |

| PJSD12W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 12 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 13.3 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=12V$ | - | - | 1 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{pp}=1A$ | - | - | 19 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 130 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 50 | - | pF |

| PJSD15W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 15 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 16.7 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=15V$ | - | - | 1 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{pp}=1A$ | - | - | 24 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 120 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 30 | - | pF |



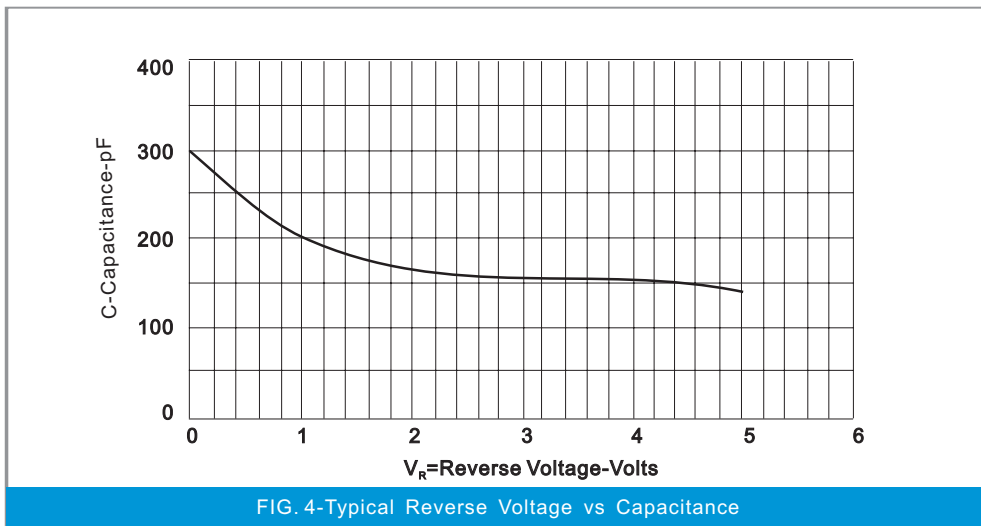
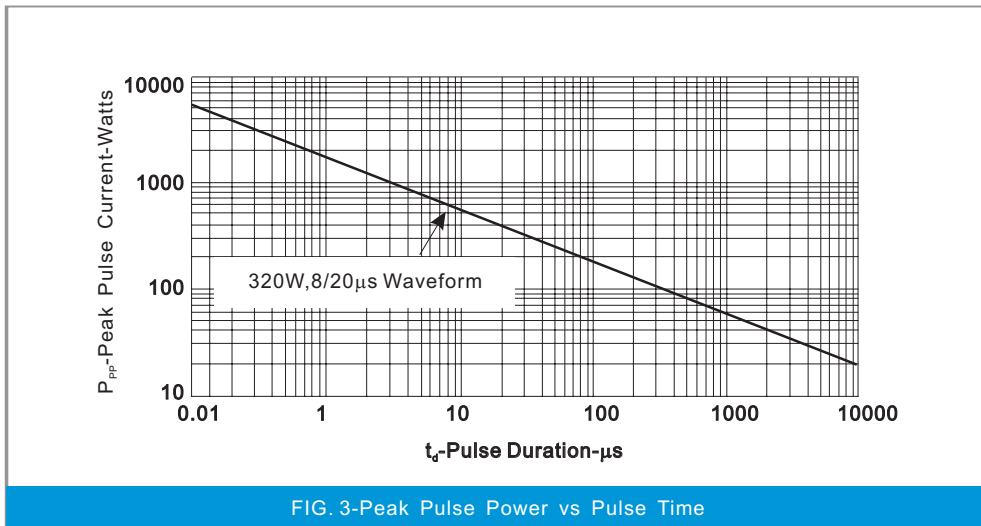
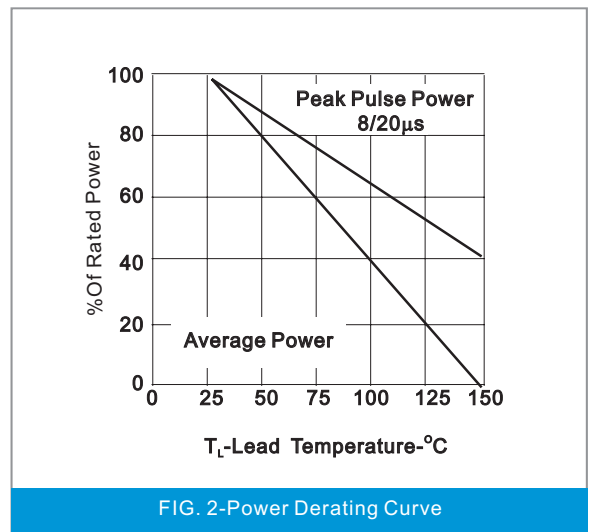
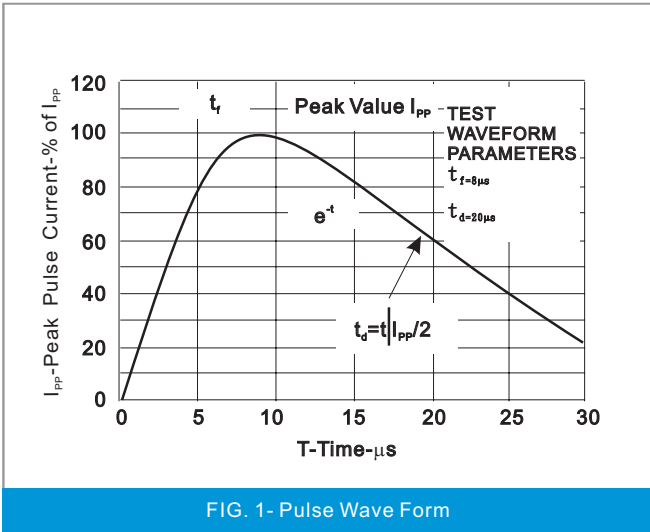
PJSD03W~PJSD36W

| PJSD24W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 24 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 26.7 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=24V$ | - | - | 1 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=1A$ | - | - | 43 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 80 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 10 | - | pF |

| PJSD36W | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 36 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 40 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=36V$ | - | - | 1 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=1A$ | - | - | 60 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | 30 | - | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | 1 | - | pF |



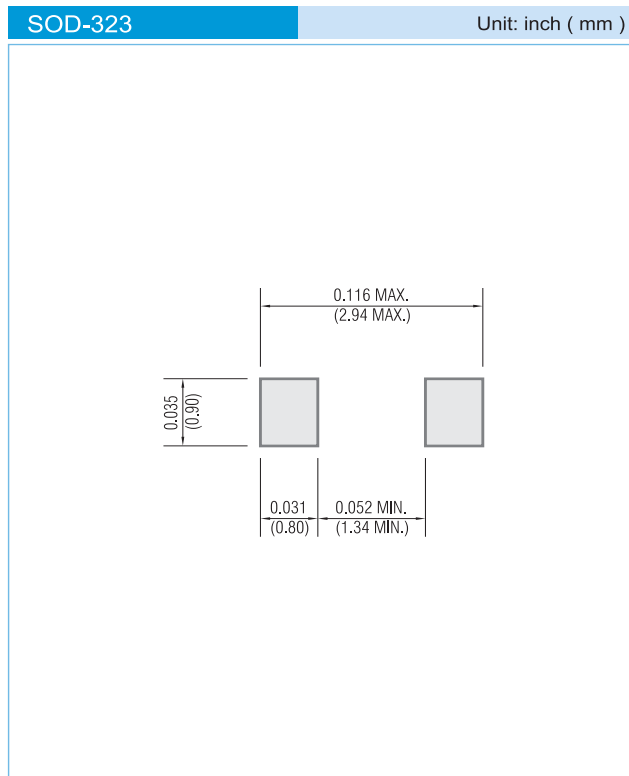
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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 5K per 7" plastic Reel

LEGAL STATEMENT

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