



PJSD03TS~PJSD36TS

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

VOLTAGE 3~36 Volt **POWER** 120 Watt

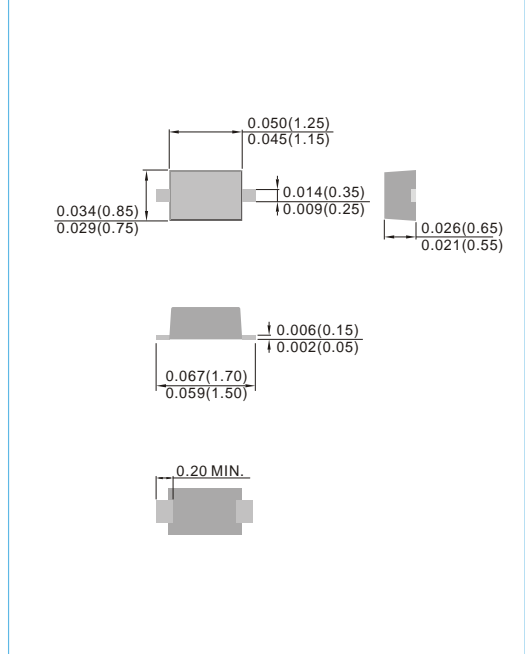
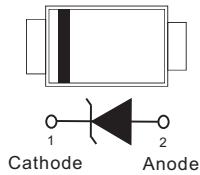
SOD-523 Unit : inch(mm)

FEATURES

- 120 Watts peak pules 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
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

APPLICATIONS

- Case: SOD-523 plastic
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx Weight: 0.00005 ounces, 0.0014 grams
- Marking : PJSD03TS : KD
PJSD05TS : KE
PJSD07TS : KF
PJSD08TS : KR
PJSD12TS : LE
PJSD15TS : LM
PJSD24TS : LZ
PJSD36TS : MP



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATING

| Rating | Symbol | Value | Units |
|---|-----------|-------------|-------|
| Peak Pulse Power Dissipation ($t_p=8/20 \mu s$) | P_{PP} | 120 | W |
| ESD Voltage | V_{ESD} | 25 | KV |
| Operating Temperature | T_J | -50 to +150 | °C |
| Storage Temperature | T_{STG} | -50 to +150 | °C |

ELECTRICAL CHARACTERISTICS

| PJSD03TS | | | | | | |
|---------------------------------|-----------|--------------------|------|---------|------|---------|
| 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 | $V_R=3.3V$ | - | - | 200 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=5A$ | - | - | 6.5 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 200 | pF |
| Off State Junction Capacitance | C_J | 3.3Vdc Bias=f=1MHz | - | - | 100 | pF |



PJSD03TS~PJSD36TS

| PJSD05TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 6.0 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=5V$ | - | - | 5 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=5A$ | - | - | 9 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 110 | pF |
| Off State Junction Capacitance | C_J | 5Vdc Bias=f=1MHz | - | - | 60 | pF |

| PJSD07TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|-------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 7.0 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 7.5 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=7V$ | - | - | 150 | nA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=8.8A$ | - | - | 22.7 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 85 | pF |

| PJSD08TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| 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 | $V_R=8V$ | - | - | 5 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=5A$ | - | - | 13 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 70 | pF |

| PJSD12TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| 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 | $V_R=12V$ | - | - | 5 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=5A$ | - | - | 17 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 60 | pF |



PJSD03TS~PJSD36TS

| PJSD15TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| Parameter | Symbol | Conditions | Min. | Typical | Max. | Units |
| Reverse Stand-Off Voltage | V_{RWM} | - | - | - | 15 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_{BR}=1mA$ | 16.6 | - | - | V |
| Reverse Leakage Current | I_R | $V_R=15V$ | - | - | 5 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=5A$ | - | - | 22 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 50 | pF |

| PJSD24TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| 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 | $V_R=24V$ | - | - | 5 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=3A$ | - | - | 32 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 25 | pF |

| PJSD36TS | | | | | | |
|---------------------------------|-----------|------------------|------|---------|------|---------|
| 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 | $V_R=36V$ | - | - | 5 | μA |
| Clamping Voltage(8/20 μs) | V_C | $I_{PP}=1A$ | - | - | 55 | V |
| Off State Junction Capacitance | C_J | 0Vdc Bias=f=1MHz | - | - | 20 | pF |



PJSD03TS~PJSD36TS

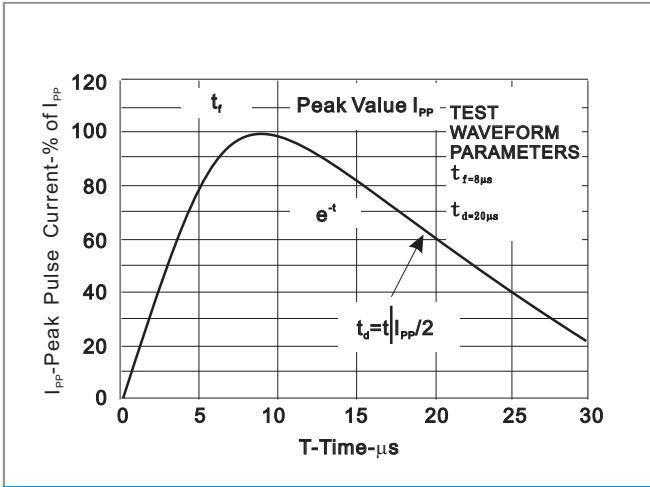


FIG. 1- Pulse Wave Form

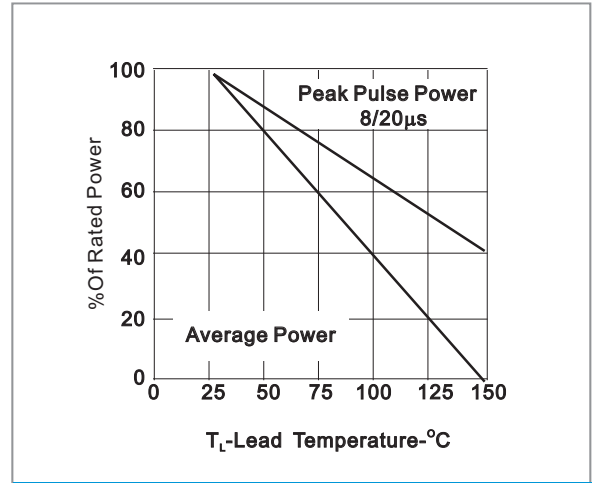


FIG. 2-Power Derating Curve

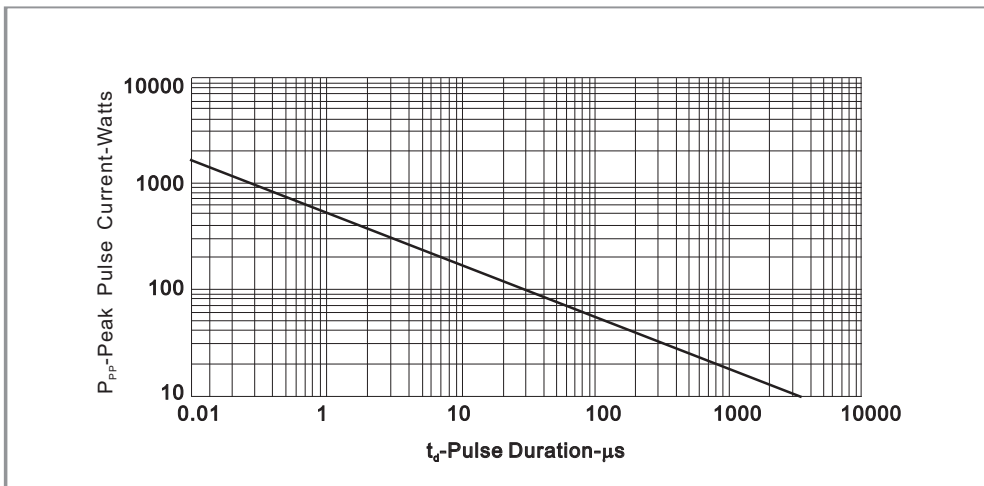


FIG. 3-Peak Pulse Power vs Pulse Time

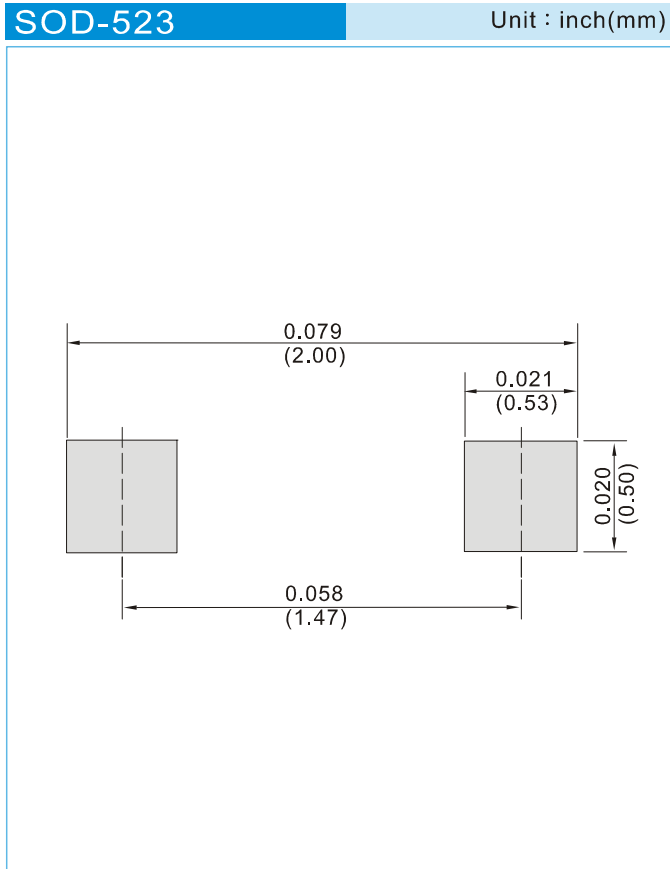


PJSD03TS~PJSD36TS

PART NO PACKING CODE VERSION

| Part No Packing Code | Package Type | Packing Type | Marking | Version |
|----------------------|--------------|--------------------|---------|--------------|
| PJSD03TS_R1_00001 | SOD-523 | 5K pcs / 7" reel | KD | Halogen free |
| PJSD03TS_R2_00001 | SOD-523 | 12K pcs / 13" reel | KD | Halogen free |

MOUNTING PAD LAYOUT





PJSD03TS~PJSD36TS

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:

Click to view products by [Panjit](#) manufacturer:

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [DESD5V0U1BB-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE39CA-TP](#) [P6KE8.2A](#)
[SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD105-B1-02EL E6327](#) [ESD112-B1-02EL E6327](#) [ESD119B1W01005E6327XTSA1](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)
[3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [DESD5V0U1BL-7B](#) [DRTR5V0U4SL-7](#)
[SCM1293A-04SO](#) [ESD200-B1-CSP0201 E6327](#) [SM12-7](#) [SMF8.0A-TP](#) [SMLJ45CA-TP](#) [CEN955 W/DATA](#) [82350120560](#) [VESD12A1A-](#)
[HD1-GS08](#) [CPDUR5V0R-HF](#) [CPDQC5V0U-HF](#) [CPDQC5V0USP-HF](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [D1213A-02WL-7](#)
[MMAD1108/TR13](#) [5KP100A](#) [5KP15A](#) [5KP18A](#) [5KP48A](#) [5KP90A](#)