

# PJSOT03C-05~PJSOT36C-05

## STANDARD CAPACITANCE TVS ARRAY

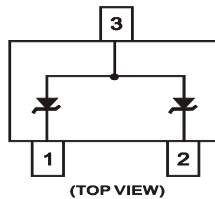
**VOLTAGE** 3 ~ 36 Volt **POWER** 500 Watt

### FEATURES

- 500 Watts Peak Pulse Power per Line (  $t_p=8/20\mu s$  )
- Low Clamping Voltage
- Available in Multiple Voltage Types Ranging from 3V and 36V
- Unidirectional & Bidirectional Configurations
- ESD IEC-61000-4-2 Air  $\pm 30kV$ , Contact  $\pm 30kV$
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

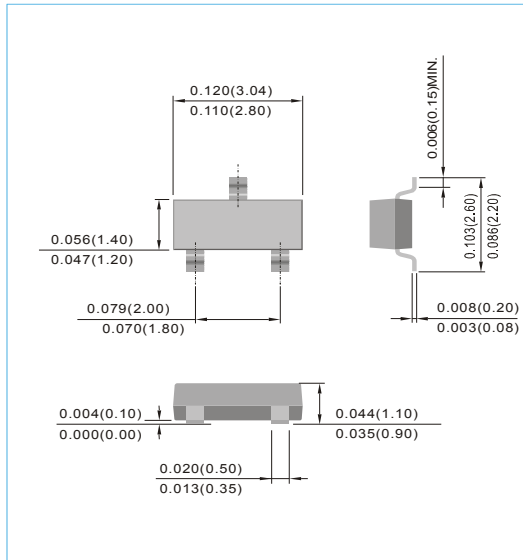
### MECHANICAL DATA

- Case: SOT-23
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight: 0.0003 ounce, 0.0084 gram



### SOT-23

Unit : inch(mm)



### DEVICE CHATACTERISTICS

Ratings at 25°C unless otherwise specified.

| Parameter                                              | Symbol    | Value                | Units |
|--------------------------------------------------------|-----------|----------------------|-------|
| Forward Voltage@ 100mA, 300μs-Square Wave              | $V_F$     | 1.5                  | Volts |
| Peak Pulse Power ( $t_p=8/20\mu s$ )                   | $P_{PP}$  | 500                  | Watts |
| ESD IEC-61000-4-2 (Air)<br>ESD IEC-61000-4-2 (Contact) | $V_{ESD}$ | $\pm 30$<br>$\pm 30$ | kV    |
| Operating Temperature Range                            | $T_J$     | -50 to 150           | °C    |
| Storage Temperature Range                              | $T_{STG}$ | -50 to 150           | °C    |

| Part Number | Reverse Stand-off Voltage | Minum Breakdown Voltage | Max Clamping Voltage @ 8/20 μsec | Peak Pulse Current 8/20 μsec | Maximum Leakage Current | Off-State Capacitance, 1MHz Zero dc Bias Note 1 | Marking Code |
|-------------|---------------------------|-------------------------|----------------------------------|------------------------------|-------------------------|-------------------------------------------------|--------------|
|             | $V_{RWM}$                 | @1mA $V_{BR}$           | $V_{CL}$ @ $I_{PP}$              | $I_{PP}$                     | @ $V_{RWM}$ $I_D$       | $C_d$                                           |              |
|             | Max. V                    | V                       | V                                | Max. A                       | μA                      | Max. pF                                         |              |
| PJSOT03C-05 | 3                         | 4                       | 6.5                              | 43                           | 125                     | 500                                             | 1EC          |
| PJSOT05C-05 | 5                         | 6                       | 9.8                              | 42                           | 20                      | 550                                             | 2EC          |
| PJSOT08C-05 | 8                         | 8.5                     | 13.4                             | 34                           | 10                      | 250                                             | 3EC          |
| PJSOT12C-05 | 12                        | 13.3                    | 19                               | 21                           | 2                       | 150                                             | 4EC          |
| PJSOT15C-05 | 15                        | 16.7                    | 24                               | 17                           | 1                       | 100                                             | 5EC          |
| PJSOT24C-05 | 24                        | 26.7                    | 43                               | 12                           | 1                       | 88                                              | 6EC          |
| PJSOT36C-05 | 36                        | 40                      | 75                               | 9                            | 1                       | 85                                              | 7EC          |

Note 1: Capacitance is measured between Pin 3 and either Pin 1 or 2 for the PJSOT03-05C and PJSOT36C-05 individual capacitance is measured between Pin 1 to Pin 3 or Pin2 to Pin 3.

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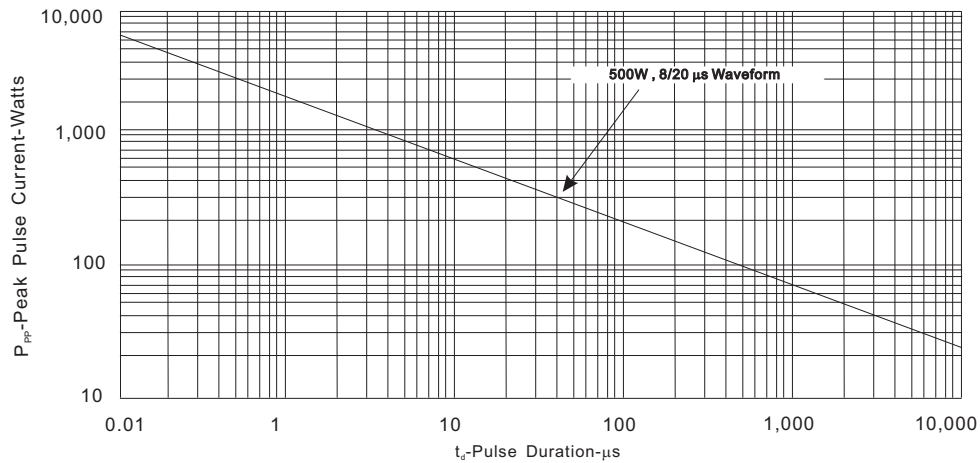


FIG.1- PEAK PULSE POWER VS PULSE TIME

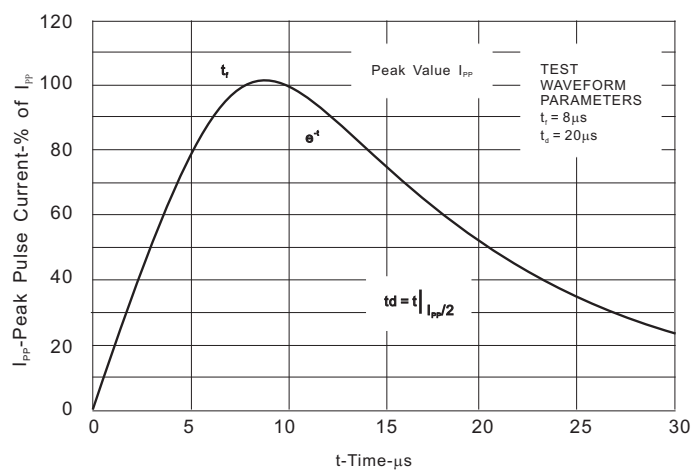


FIG.2- PULSE WAVE FORM

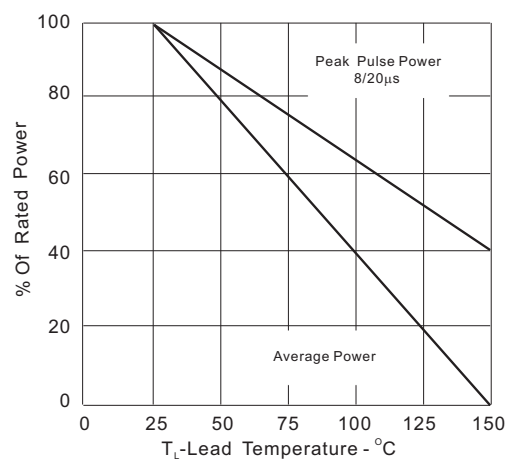
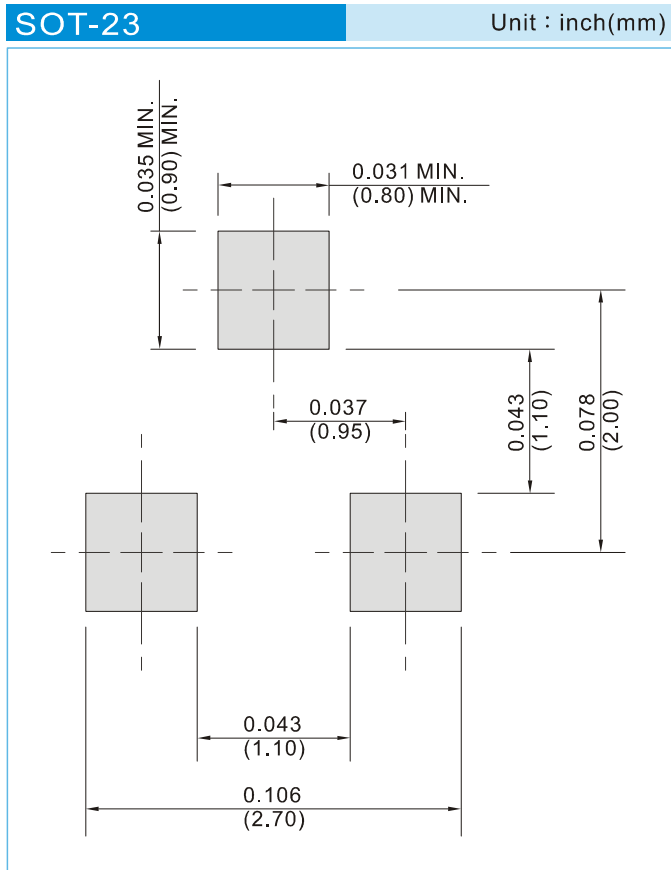


FIG.3- POWER DERATING CURVE

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

## PJSOT03C-05~PJSOT36C-05

Part No\_packing code\_Version

PJSOT03C-05\_R1\_00001

PJSOT03C-05\_R2\_00001

For example :

RB500V-40\_R2\_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

| Packing Code XX                      |                      |                                  |                      | Version Code XXXXX |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|--------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS         | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> 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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