

# 1.5SMCJ SERIES

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR



**CHENG-YI  
ELECTRONIC**

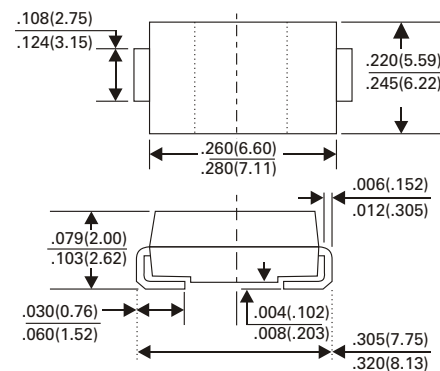


### FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Excellent clamping capability
- Repetition Rate (duty cycle):0.05%
- Fast response time: typically less then 1.0 ps from 0 volts to BV min.
- Typical  $I_D$  less then 1  $\mu$ A above 10V
- High temperature soldering:260°C/10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

VOLTAGE 5.0 to 170 VOLTS  
PEAK PULSE POWER 1500 WATTS

### SMC/DO-214AB



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case:JEDEC DO-214AB molded plastic over passivated junction
- Terminals:Solder plated solderable per MIL-STD-750, Method 2026
- Polarity:Color band denotes positive end (cathode) except bidirectional types
- Standard Packaging: 16mm tape (EIA STD EIA-481)
- Weight:0.007 ounce, 0.21 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| RATINGS  | SYMBOL                            | VALUE        | UNITS |
|--|-----------------------------------|--------------|-------|
| Peak Pulse Power Dissipation on 10/1000 $\mu$ s (NOTE 1,2,Fig.1)   | PPM                               | Minimum 1500 | Watts |
| Peak Pulse on Current 10/1000 $\mu$ s waveform (NOTE 1,Fig.3)  | IPPM                              | See Table 1  | Amps  |
| Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)(NOTE 2,3) | IFSM                              | 100.0        | Amps  |
| Operating Junction and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub> | -55 to + 150 | °C    |

Notes: 1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig.2

2. Measured on 8.0mm<sup>2</sup> copper pads to each terminal.

3. Measured on 8.3mm, single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

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### MAXIMUM RATINGS AND CHARACTERISTIC CURVES P6SMBJ SERIES

Fig. 1 - PEAK PULSE POWER RATING CURVE

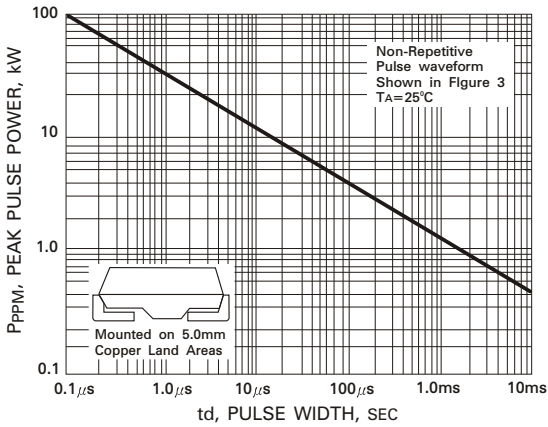


Fig. 2 - PULSE DERATING CURVE

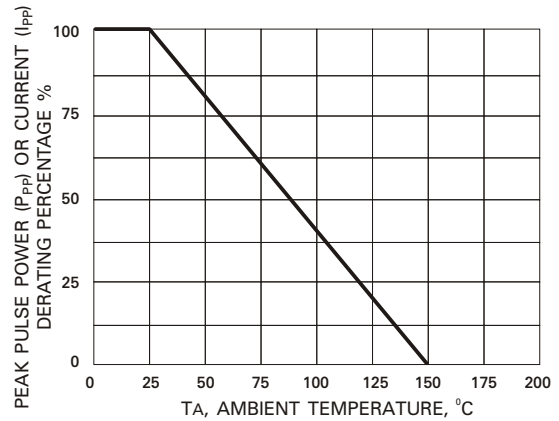


Fig. 3 - PULSE WAVEFORM

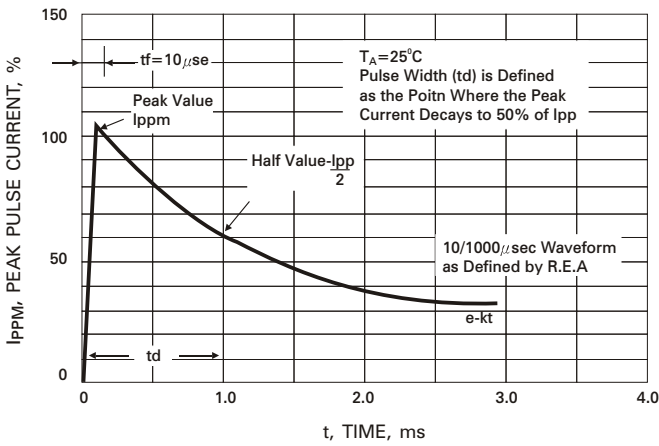


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

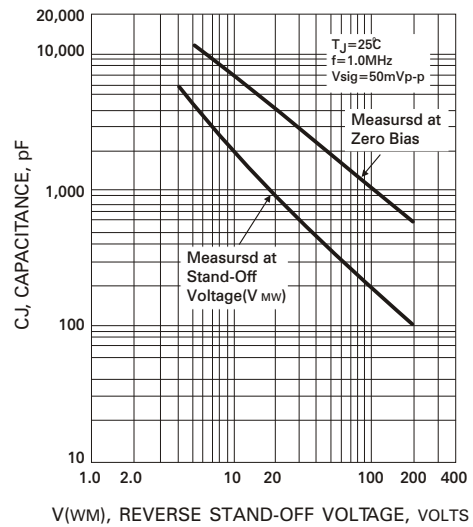


Fig. 5 - MAXIMUM NON-REPETITIVE  
PEAK FORWARD SURGE CURRENT

