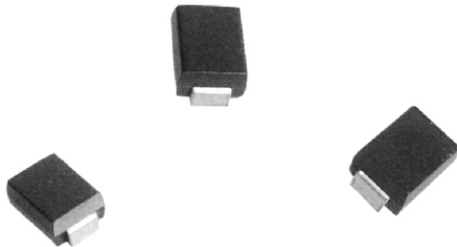


# P4SMBJ SERIES

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR



**CHENG-YI  
ELECTRONIC**

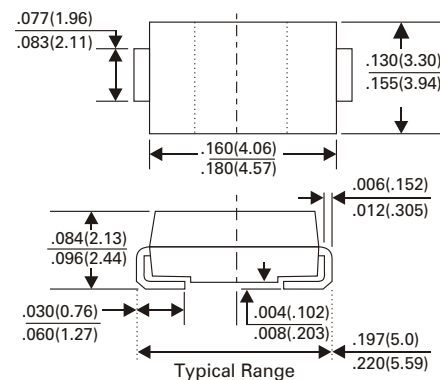


### FEATURES

- 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):0.01%
- Fast response time: typically less then 1.0 ps from 0 volts to BV for bidirectional types
- Typical  $I_D$  less then 1  $\mu A$  above 10V
- High temperature soldering:250°C/10 seconds at terminals
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

VOLTAGE 5.0 to 170 VOLTS  
400 WATT PEAK POWER PULSE

### DO-214AA MODIFIED J-BEND



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case:JEDEC DO-214AA low profile molded plastic
- Terminals:Solder plated solderable per MIL-STD-750, Method 2026
- Polarity:Indicated by cathode band except bi-directional types
- Standard Packaging: 12mm tape (EIA STD EIA-481-1)
- Weight:0.003 ounce, 0.093 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATINGS	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation at $T_A=25^\circ C$ (NOTE 1,2,5)Fig.1	$P_{PPM}$	Minimum 400	Watts
Peak Forward Surge Current per Figure 5(NOTE 3)	$I_{FSM}$	40.0	Amps
Peak Pulse Current Current on 10/1000 s waveform (NOTE 1, FIG.2)	$I_{PPM}$	See Table 1	Amps
Peak State Power Dissipation(NOTE 4)	$P_{M(AV)}$	1.0	Watts
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	$^\circ C$

- Notes: 1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A=25^\circ C$  per Fig.2  
 2. Measured on 5.0mm<sup>2</sup> copper pads to each terminal  
 3. 8.3mm single half sine-wave duty cycle=4pulses per minutes maximum  
 4. Lead temperature at 75°C=TL  
 5. Peak pulse power waveform is 10/1000S

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## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR



**CHENG-YI  
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### MAXIMUM RATINGS AND CHARACTERISTIC CURVES P4SMBJ SERIES

Fig. 1 - PEAK PULSE POWER RATING CURVE

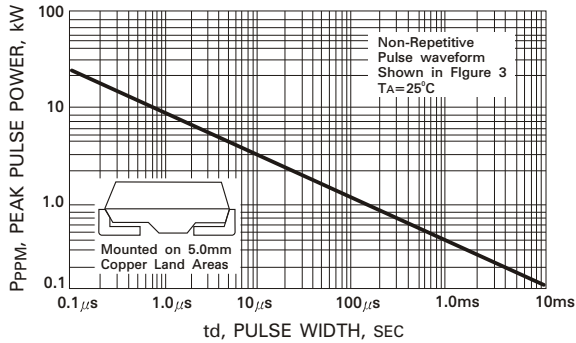


Fig. 3 - PULSE WAVEFORM

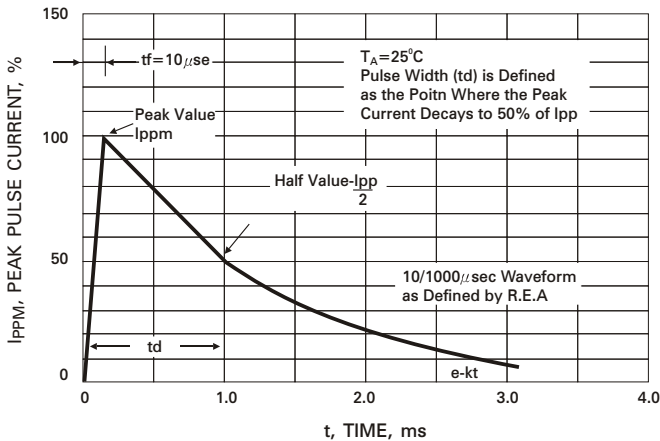


Fig. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

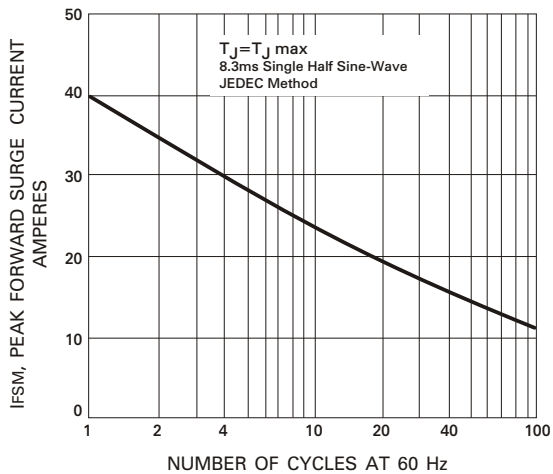


Fig. 2 - PULSE DERATING CURVE

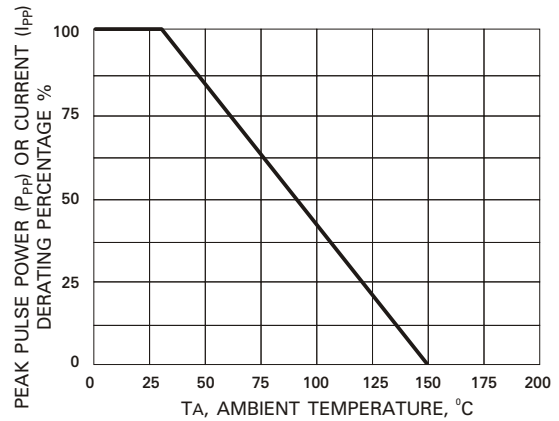


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

