PANJIT SEMI CONDUCTOR

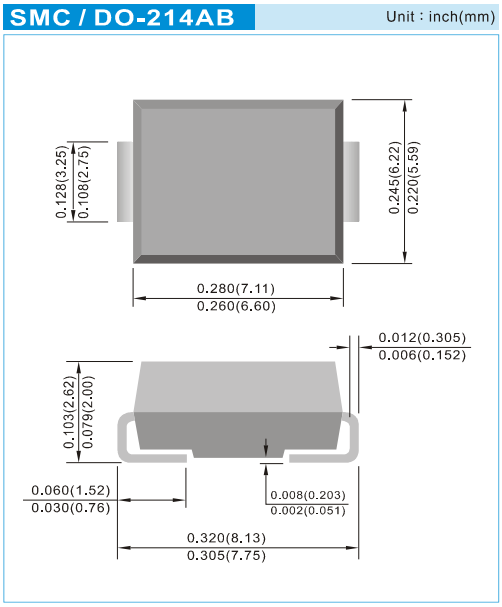
**Preliminary**

# 1.5SMCJ5.0A-AU ~ 1.5SMCJ220CA-AU Series

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR PEAK PULSE POWER 1500 Watt

**STAND-OFF VOLTAGE** | **5 to 220 Volt**

**SMC / DO-214AB** Unit : inch(mm)



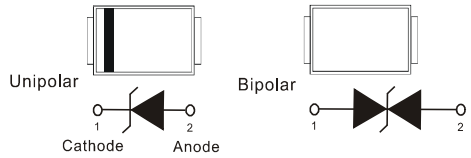

**Recongnized File # E210467**

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- ESD IEC-61000-4-2 Air ± 30kV, Contact ± 30kV
- For surface mounted applications in order to optimize board space.
- Low inductance
- High temperature soldering : 260°C /10 seconds at terminals
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### 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 cathode end
- Standard Packaging: 16mm tape (EIA-481)
- Approx. Weight: 0.266 grams




### DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 1.5SMCJ5.0 thru types 1.5SMCJ220.
Electrical characteristics apply in both directions.

### MAXIMUM RATINGS AND CHARACTERISTICS

Rating at 25°Cambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

| Rating | Symbol | Value | Units |
|---|---|---|---|
| Peak Power Dissipation at $T_A$=25°C, tp=1ms (Notes 1) | $P_{PP}$ | 1500 | W |
| Power Dissipation on Infinite Heat Sink at $T_L$=50°C | $P_D$ | 6.5 | Watts |
| Peak Pulse Current on tp=10/1000μs waveform (Notes 1) | $I_{PPM}$ | See table | A |
| Typical Thermal Resistance Junction to Air (Notes 2) | $R_{\theta JA}$ | 50 | °C / W |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Notes 3) | $I_{FSM}$ | 200 | A |
| ESD IEC-61000-4-2 (Air)<br>ESD IEC-61000-4-2 (Contact) | $V_{ESD}$ | ±30<br>±30 | kV |
| Operating Junction and Storage Temperature Range | $T_J$,$T_{STG}$ | -55 to +150 | °C |

NOTES :

1.Non-repetitive current pulse, per Fig. 3 and derated above $T_A$=25°Cper Fig. 2.

2.Mounted on 2mm² (0.013mm thick) land areas.

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

4.A transient suppressor is selected according to the working peak reverse voltage ($V_{RWM}$), which should be equal to or greater than the DC or continuous peak operating voltage level.

## 1.5SMCJ5.0A-AU ~ 1.5SMCJ220CA-AU Series

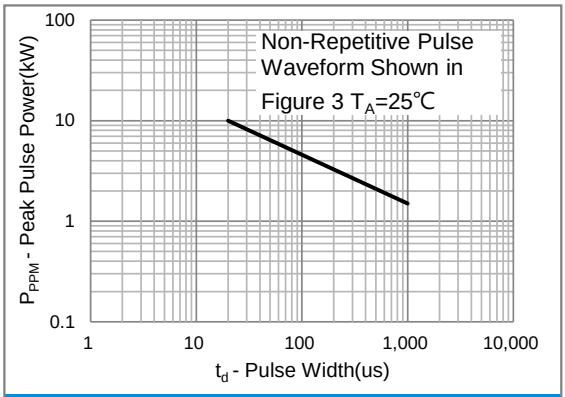



**Fig.1 Peak Pulse Power Rating Curve**

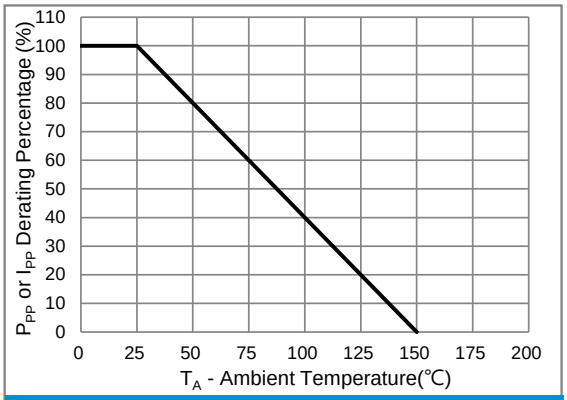



**Fig.2 Derating Curve**

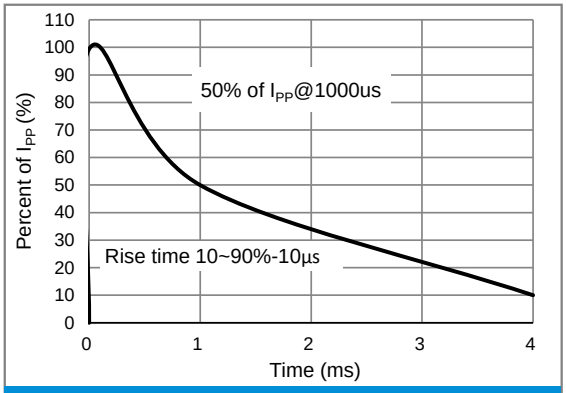



**Fig.3 10/1000us Pulse Waveform**

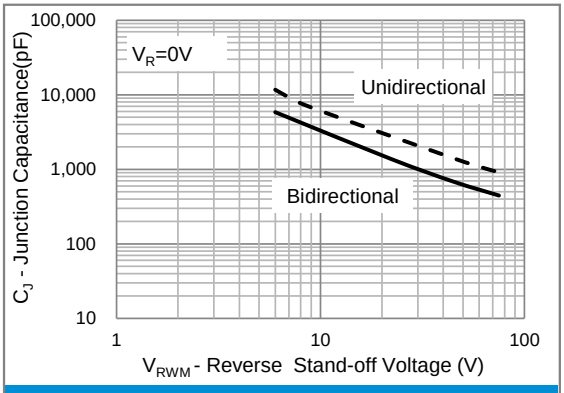


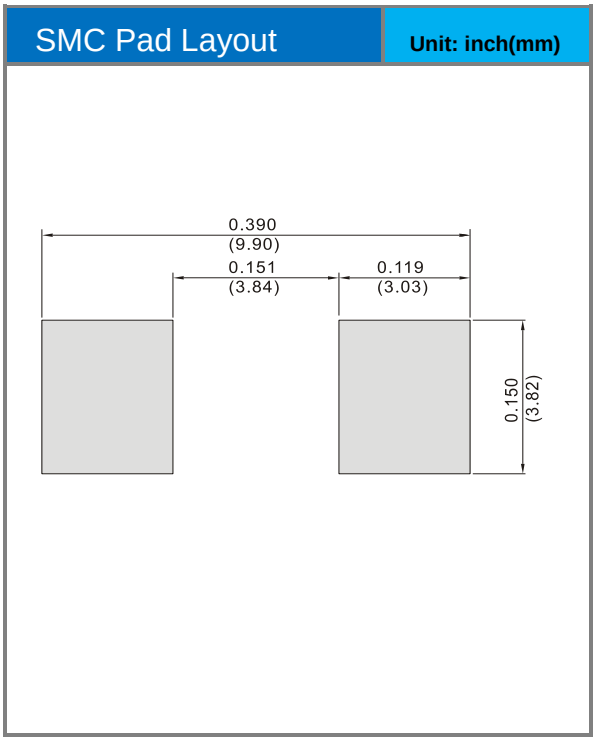

**Fig.4 Typical Capacitance**

# 1.5SMCJ5.0A-AU ~ 1.5SMCJ220CA-AU Series

## Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|---|---|---|---|
| 1.5SMCJxxxA-AU | SMC | 0.8K pcs / 7” reel | See Table |
| 1.5SMCJxxxA-AU | SMC | 3K pcs / 13” reel | See Table |

## Mounting Pad Layout



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