

3.0SMCJ SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE – 5.0-170 Volts Peak Pulse Power-3000 Watts

FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Excellent clamping capability
- Low inductance
- Repetition Rate (duty cycle): 0.5%
- Fast response time: typically less than 1.0ps from 0 volts to BV for bidirectional types
- Typical I_o less than $1\mu A$ above 10V
- High temperature soldering: 250°C/10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

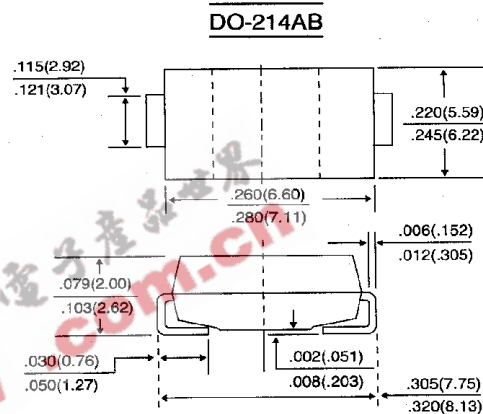
MECHANICAL DATA

Case: JEDEC DO214AB molded plastic over passivated junction

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Standard Packaging: 16mm tape (EIA-481)

Weight: .007 ounces, 0.21 gram



Dimensions in inches and (millimeters)
*Typical Range

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μs waveform (Notes 1, 2, Fig. 1)	P_{PPM}	Minimum 3000	Watts
Peak Pulse Current on 10/1000 μs waveform (Note 1, Fig. 3)	I_{PPM}	See Table 1	Amps
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (NOTES 2,3)	I_{FSM}	200.0	Amps
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 $T_A = 25^\circ C$ per Fig. 2.
2. Mounted on 8.0mm² copper pads to each terminal.
3. 8.3ms single half sine-wave, or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

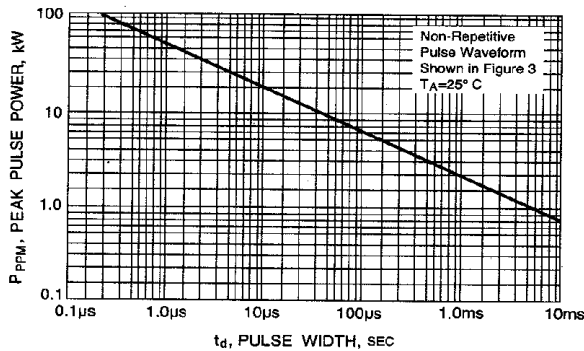


FIGURE 1 PEAK PULSE POWER VS PULSE TIME

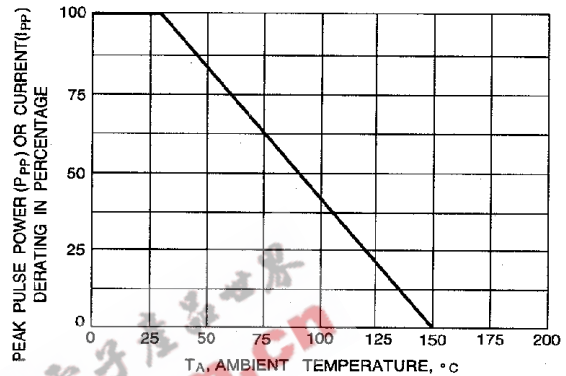


FIGURE 2 DERATING CURVE

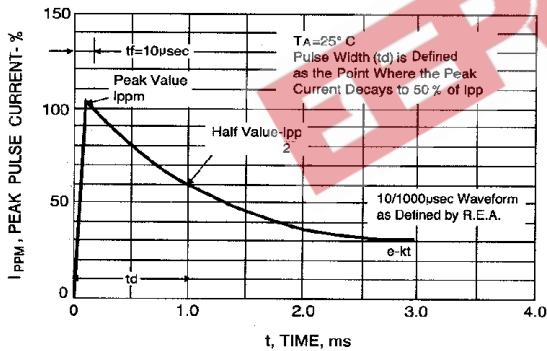


FIGURE 3 PULSE WAVEFORM

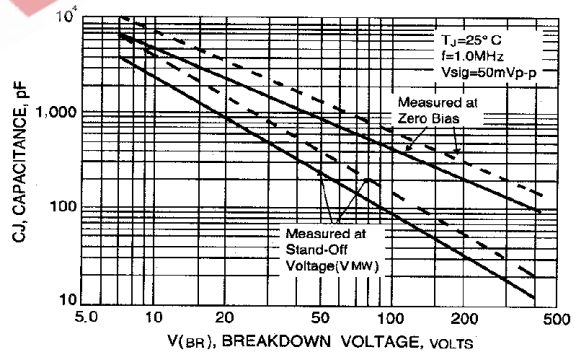


FIGURE 4 TYPICAL CAPACITANCE VS STAND-OFF VOLTAGE

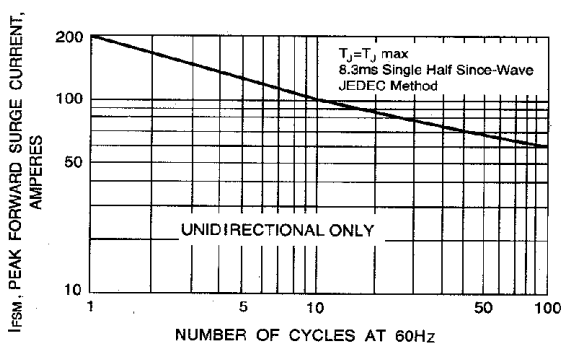


FIGURE 5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

