

P4SMAJ SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE – 5.0 to 170 Volts 400 Watt Peak Power Pulse

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 than 1.0 ps from 0 volts to BV for unidirectional types
- Typical I_b 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 DO-214AC low profile molded plastic

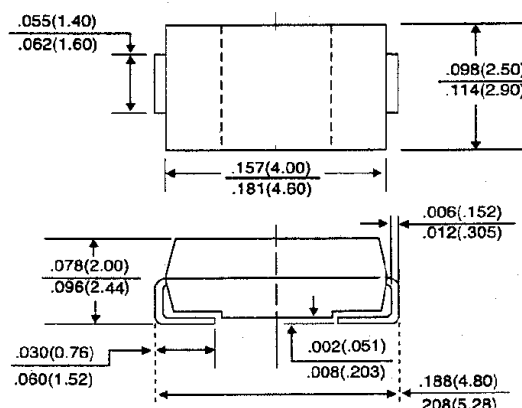
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band except bi-directional types

Weight: 0.002 ounces, 0.064 gram

Standard Packaging: 12mm tape per (EIA-481)

SMA/DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	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 μs waveform (NOTE 1,FIG.2)	I_{PPM}	See Table 1	Amps
Steady State Power Dissipation (NOTE 4)	$P_{M(AV)}$	1.0	Watts
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 5.0mm² copper pads to each terminal.
3. 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum.
4. Lead temperature at 75°C = T_L .
5. Peak pulse power waveform is 10/1000 μs .

MAXIMUM RATINGS AND CHARACTERISTIC CURVES P4SMAJ SERIES

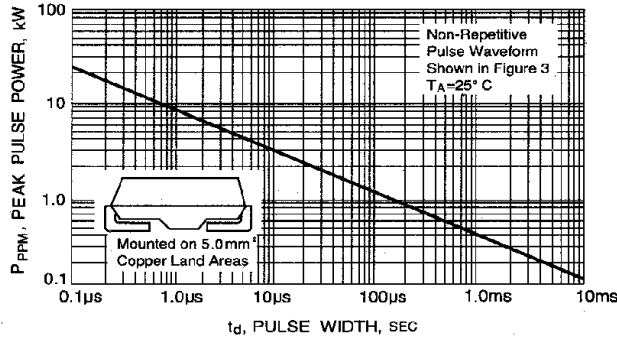


FIG.1-PEAK PULSE POWER RATING CURVE

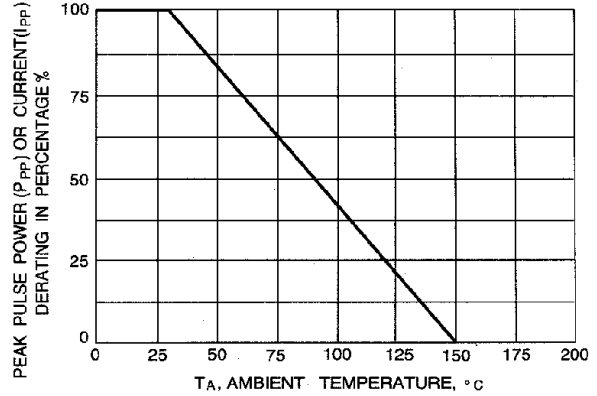


FIG.2-PULSE RATING CURVE

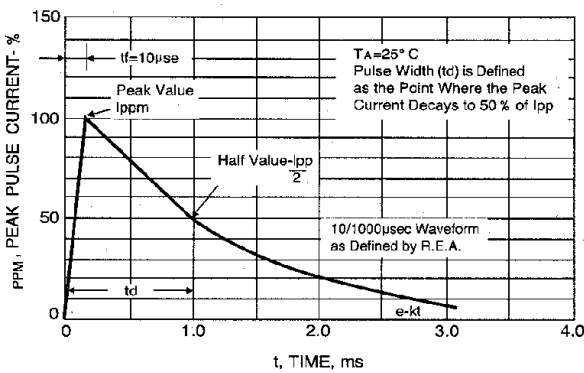


FIG.3-PULSE WAVEFORM

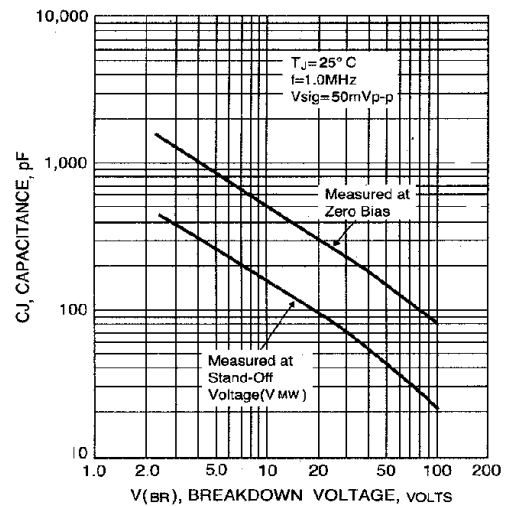


FIG.4 TYPICAL JUNCTION CAPACITANCE

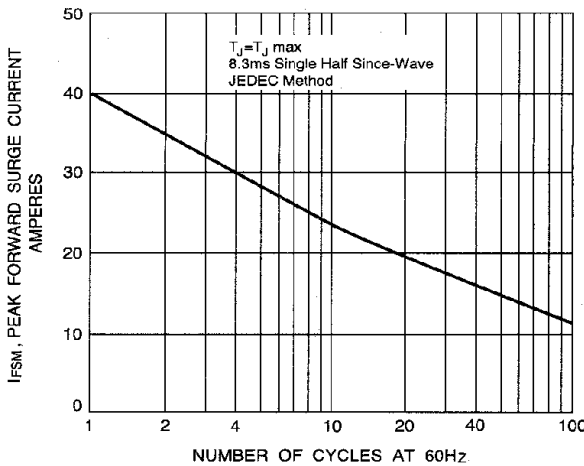


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

