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60KS200C and 90KS200C BIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS

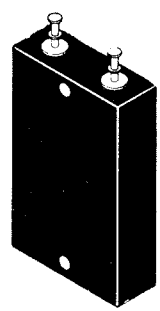
TRANSIENT ABSORPTION ZENER

FEATURES

- 200 VOLT BIDIRECTIONAL
- EXCEEDS MIL-STD-1399 REQUIREMENTS
- CAN BE SUPPLIED WITH JAN/JANTX PARTS

These devices are bidirectional Transient Suppressors for shipboard equipment and power servicing equipment where large voltage transients endanger voltage sensitive components. It meets all applicable environmental requirements of MIL-S-19500 and is consistent with MIL-E-16400. Designed with MIL-STD-1399 Section 300A (Interface standard for shipboard systems, Electrical power, alternating current) as the controlling specification. The individual submodules can be selected for higher voltage applications as well as increased power capability. The subcomponents can also be tested or screened for military requirements prior to encapsulation into the complete module. The screening would consist of 100% TX level environmental testing per MIL-S-19500/507A (Para. 4.3). For ordering these options, use the following suffix:

H1 – Submodule Screening,
H2 – Submodule and Module Screening,
H3 – Submodule and Module Screening. Module Group B & C lot testing. See Appendix for Processing Test Plan.



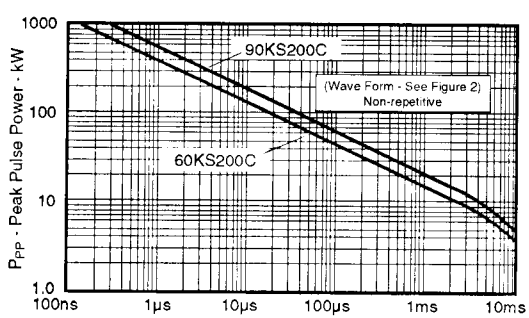
MAXIMUM RATINGS

60,000 watts Peak Pulse Power dissipation at 25°C for 60KS200C
90,000 watts Peak Pulse Power dissipation at 25°C for 90KS200C
Steady State power dissipation: 10 watts
Operating and Storage temperatures: -65° to +150°C
$t_{clamping}$ (0 volts to $V_{(BR)}$): Less than 1 x 10^{-8} seconds
CAPACITANCE
170 pF @ 0 Volts (Typical)

ELECTRICAL CHARACTERISTICS @ 25°C (Test Both Polarities)*

MICROSEMI PART NUMBER	REVERSE STAND-OFF VOLTAGE V_{WM} VOLTS	MAXIMUM REVERSE LEAKAGE @ V_{WM} ID µA	BREAKDOWN VOLTAGE @1 mA $V_{(BR)}$ VOLTS Min.	Max.	MAXIMUM CLAMPING VOLTAGE @ I_{PP} V_C VOLTS	PEAK PULSE CURRENT (Fig. 2) I_{PP} A
60KS200C	180	10	200	225	335	180
90KS200C	180	0.5	200	225	280	180
90KS200C	180	0.5	200	225	335	270

• Consult factory for other available voltages.



Peak Pulse Power Vs Pulse Time

FIGURE 1

MECHANICAL CHARACTERISTICS

CASE: Molded case.
TERMINAL: Silver-plated brass.
POLARITY: Bidirectional.
WEIGHT: 50 grams (Appx.).

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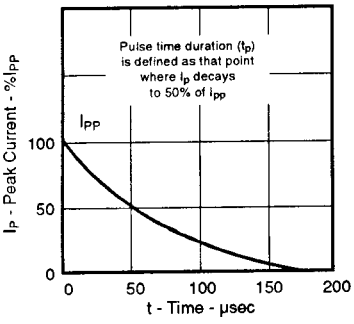
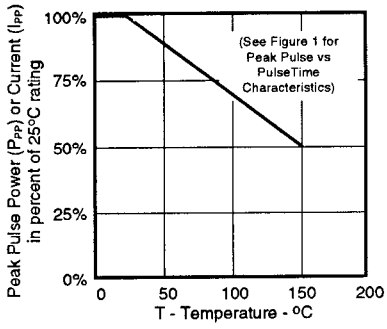


Pulse Wave Form
(1.2 x 50µs)

FIGURE 2

NOTE: In MIL-STD-1399, Section 300A the source impedance is assumed to be 5 ohms at 100 to 200 kHz of shipboard electric power systems.



Derating Curve

FIGURE 3

NOTE: Maximum operating and storage temperature is 150°C