

Microsemi Corp.

The diode experts

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704-15K36 and 704-15K36T TRANSIENT VOLTAGE SUPPRESSOR

TRANSIENT ABSORPTION ZENER

FEATURES

- DESIGNED FOR MIL-STD-704
- 28 VOLT POWER SUPPLY PROTECTION
- CAN BE SUPPLIED WITH JAN/JANTX PARTS

This series is primarily for use in avionics equipment. It meets all applicable environmental requirements of MIL-S-19500. The controlling specification for these devices is MIL-STD-704 (Characteristics and Utilization of Aircraft Electric Power). These 15kW assemblies are designed typically to operate with a minimum source impedance of .25 Ohms for transients.

MAXIMUM RATINGS

Peak Pulse Power dissipation at 25°C: 15,000 watts at 1 ms (See Fig. 2)

Steady State power dissipation: 10 watts

$t_{clamping}$ (0 volts to $V_{(BR)}$ min): Less than 1×10^{-12} seconds

Operating and Storage temperatures: -65° to +150°C

Forward surge rating: 300 amps, 1/120 second at 25°C

Duty cycle: .01%

ELECTRICAL CHARACTERISTICS @ 25°C

MICROSEMI PART NUMBER	REVERSE STAND-OFF VOLTAGE (Note 1) V_{WM} VOLTS	MAXIMUM REVERSE LEAKAGE I_D @ V_{WM} μA	MINIMUM BREAKDOWN VOLTAGE @ 10 mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE @ I_{pp} V_C VOLTS	MAXIMUM PEAK PULSE CURRENT (Fig. 2) I_{pp} A	MAXIMUM FORWARD VOLTAGE V_F @ ~ 8.3 msec. 100 A VOLTS DC
704-15K36	31.5	100	36	51	300	3.0
704-15K36T	31.5	500	36	51	300	3.0

NOTE 1: TAZ are normally selected according to the reverse "Stand Off Voltage" (V_{WM}) which should be equal to or greater than the dc or continuous peak operating voltage level. Bipolar also available. Consult factory.

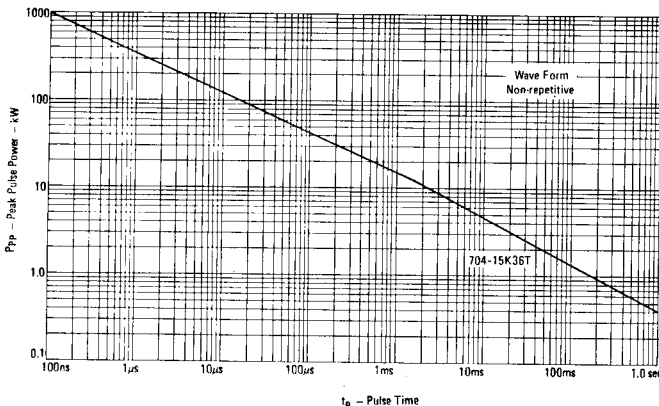
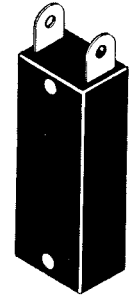
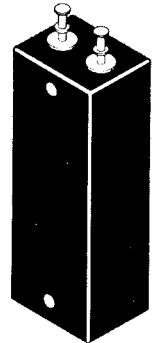


FIGURE 1
PEAK PULSE POWER
VS. PULSE TIME



(Flat Terminal)



(Turret Terminal)

MECHANICAL CHARACTERISTICS

CASE: Molded case.

TERMINAL: Silver Plated Brass

POLARITY: Cathode terminal
marked with a dot.

WEIGHT: 704-15K36 = 38 grams

704-15K36T = 65 grams

MOUNTING POSITION: Any.

704-15K36 and 704-15K36T

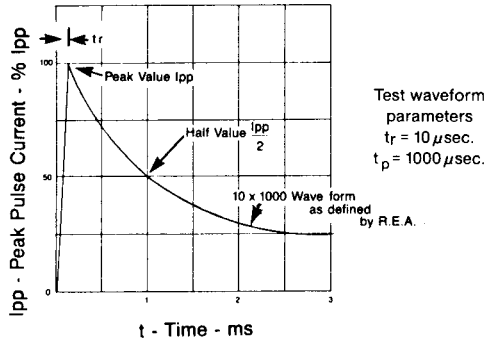
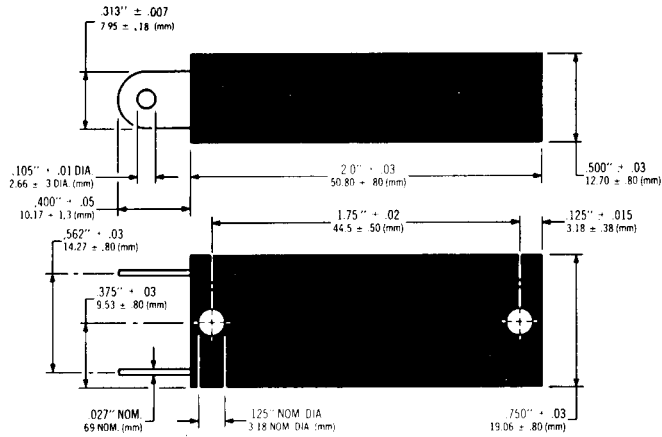


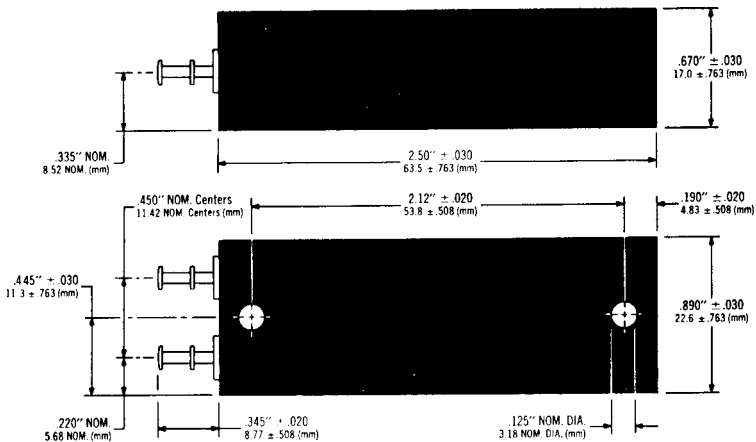
FIGURE 2

PULSE WAVEFORM

PACKAGE DIMENSIONS



CASE 8



CASE 9