



INTERNATIONAL SEMICONDUCTOR, INC.

TRANSIENT VOLTAGE SUPPRESSORS

8.4 to 500 RMS VOLTS

15,000 WATT PEAK POWER 7.5 WATT STEADY STATE

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 °C ambient unless otherwise specified

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^{\circ}\text{C}$, $T_p=1\text{ms}$ (Note 1)	P_{PK}	5	kWatts
Steady State Power Dissipation at $T_A=75^{\circ}\text{C}$ Lead Lengths .375", (9.5 mm) (Note 2)	P_D	5.0	Watts
Clamping Time 0 Volts to V_{BR}	$t_{clamping}$	$< 1 \times 10^{-12}$	Sec
Operating and Storage Temperature Range	T_{pTstg}	-40 to +150	°C

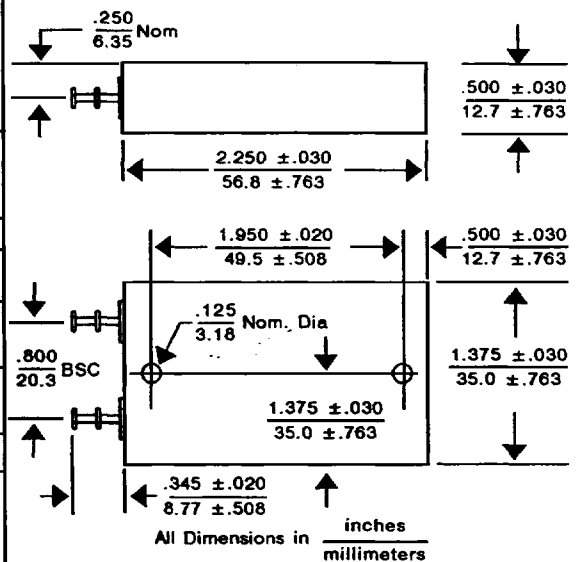
FEATURES

- Designed for 7,500 AND 15,000 watts
- Type number designates RMS voltage
- Available in ranges from 8.4 to 500 volts RMS

NOTES TO CHARACTERISTICS AND SPECIFICATIONS:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^{\circ}\text{C}$ per Fig. 2
2. Mounted on Copper Leaf area of 0.79 sq in (20 sq mm)
3. 8.3 ms half sine-wave, duty cycle = 4 pulses per minute maximum
4. V_{BR} measured after I_T applied for 300 us. I_T = Square Wave Pulse or equivalent.
5. Surge current Waveform per Fig.3 and derated per Fig. 4.

15 kW Bi-Polar Series



MECHANICAL DATA

Case: Molded plastic over passivated junctions

Terminals: Radial leads, solderable per
per MIL-STD-202, Method 208

Polarity: None - Bi-Polar Operation

Mounting Position: Any

Weight: 16.23 ounce (46 grams)

ISI PART NUMBER	AVERAGE RMS VOLTAGE V_{RMS} Volts AC	REVERSE STAND-OFF VOLTAGE (Note 3) V_R Volts	MAXIMUM REVERSE LEAKAGE @ V_R I_L uA	BREAKDOWN VOLTAGE		MAXIMUM CLAMPING VOLTAGE @ I_{PP} (1 msec) V_C Volts	MAXIMUM PEAK PULSE CURRENT (Fig. 2) I_{PP} Amps	MAXIMUM PEAK PULSE POWER (1 msec) P_P Kilowatts
				Min V_{BR} Volts	@ IR mA			
15BI8.4	8.4	12.0	250	14	10.0	22	341	7.5
15BI24	24	34.0	250	40	10.0	67	112	7.5
15BI30	30	42.5	250	50	1.0	84	90	7.5
15BI60	60	85.0	250	100	1.0	167	90	15
15BI120	120	170.0	250	200	1.0	319	47	15
15BI208	208	295.0	250	347	1.0	536	28	15
15BI250	250	354.0	250	418	1.0	652	23	15
15BI440	440	623.0	250	735	1.0	1138	13.2	15
15BI500	500	708.0	250	835	1.0	1292	11.6	15

Figure 2: PEAK PULSE POWER vs PULSE TIME

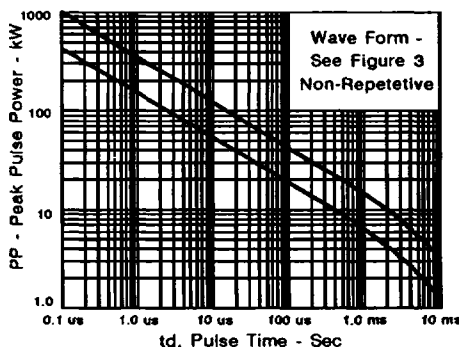


FIGURE 3 - PULSE WAVEFORM

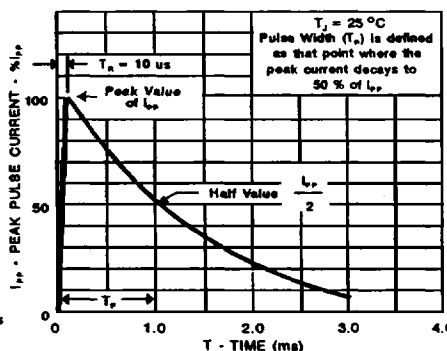
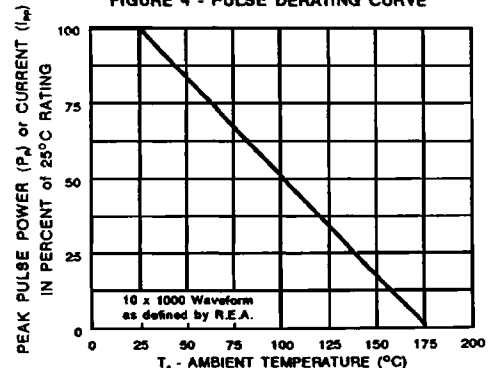


FIGURE 4 - PULSE DERATING CURVE



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