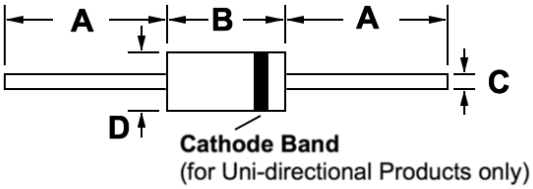
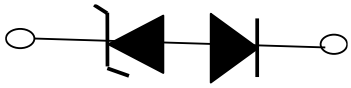
500W Axial Leaded Low Capacitance Transient Voltage Suppressors

DO-15





Features

- Peak power dissipation 500W @10 x 1000 us Pulse
- Low Capacitance and excellent clamping capability.
- Glass passivated junction.
- Fast response time: typically less than 1ps from 0 Volts to BV min
- Typical I_R less than 1uA when V_{BR} min above 12V.
- IEC 61000-4-2 ESD 30KV(Air), 30KV(Contact)
- ESD protection of data lines in accordance with IEC 61000-4-2
- EFT protection of data lines in accordance with IEC 61000-4-4
- RoHS compliant
- Lead-free finish

Mechanical Characteristics

- CASE: DO-15 Molded Plastic
- Mounting Position: Any
- Polarity: by cathode band denotes uni-directional device, only uni-directional devices offered.
- Terminal: Solder plated

REF.	DIMENSIONS			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	---	1.000	---
B	5.80	7.62	0.230	0.300
C	0.70	0.90	0.028	0.034
D	2.60	3.60	0.104	0.140

Maximum Ratings and Characteristics @ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on 10/1000 us Waveform (Note 1, FIG.1)	P_{PPM}	Min 500	W
Peak Pulse Current of on 10/1000us Waveform (Note 1, FIG.3)	I_{PPM}	See Table 1	A
Operating Junction Temperature Range	T_J	-55 to 150	°C
Storage Temperature Range	T_{STG}	-55 to 150	°C

Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A=25°C per Fig.2.

Electrical Specification (T_A=25@25°C unless otherwise specified)

Type Number	Reverse Stand-Off Voltage	Reverse Leakage @V_{RWM}	Breakdown Voltage Min. @I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Maximum Capacitance @0V 1MHZ
(Uni)	V_{RWM}(V)	I_R(uA)	$V_{BR\ MIN}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	Cj(pF)
SAC5.0	5.0	300	7.60	1	10.0	44.0	50
SAC6.0	6.0	300	7.90	1	11.2	41.0	50
SAC7.0	7.0	300	8.33	1	12.6	38.0	50
SAC8.0	8.0	100	8.89	1	13.4	36.0	50
SAC8.5	8.5	50	9.44	1	14.0	34.0	50
SAC10	10.0	5	11.10	1	16.3	29.0	50
SAC12	12.0	1	13.30	1	19.0	25.0	50
SAC15	15.0	1	16.70	1	23.6	20.0	50
SAC18	18.0	1	20.00	1	28.8	15.0	50
SAC22	22.0	1	24.40	1	35.4	14.0	50
SAC26	26.0	1	28.90	1	42.3	11.1	50
SAC30	30.0	1	33.30	1	48.6	10.0	50
SAC36	36.0	1	40.00	1	60.0	8.6	50
SAC45	45.0	1	50.00	1	77.0	6.8	50
SAC50	50.0	1	55.50	1	88.0	5.8	50

Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)

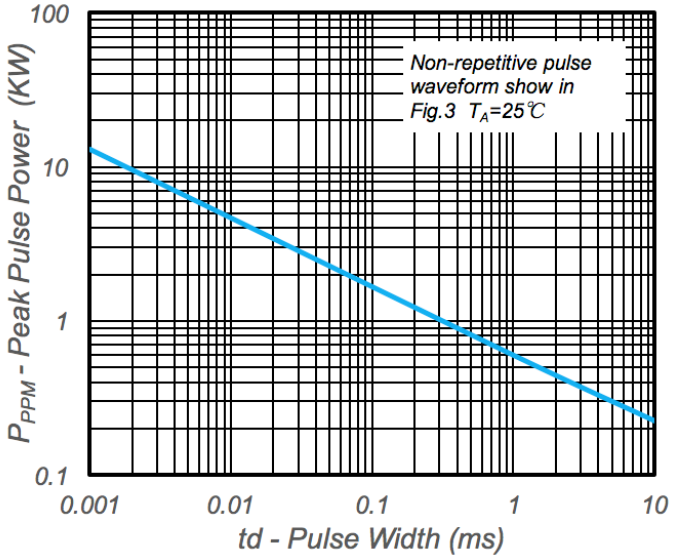


Fig.1 - Peak Pulse Power Rating

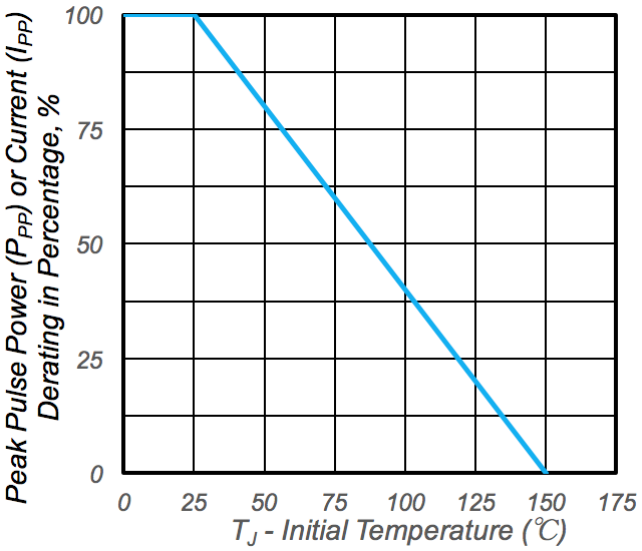


Fig.2 - Pulse Derating Cure

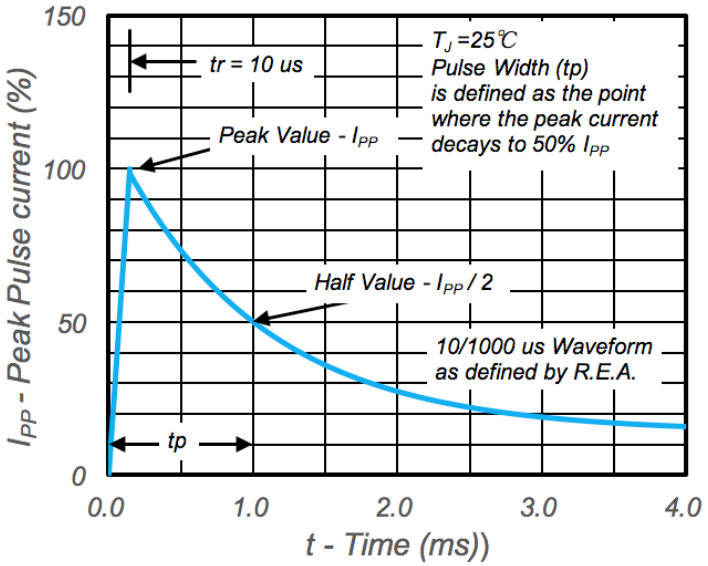


Fig.3 – Pulse Waveform