

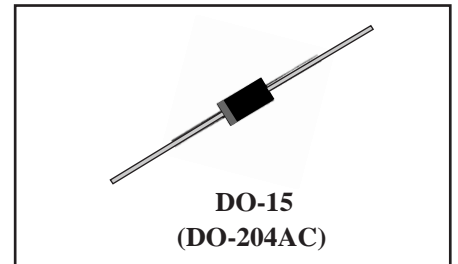
Low Capacitance Transient Voltage Suppressor

(Pb) Lead(Pb)-Free

Feature:

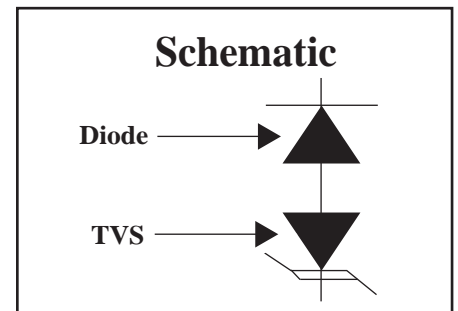
- * Plastic package has underwriters laboratory Flammability classification 94V-0.
- * Glass passivated junction.
- * 500w peak pulse power capability with a 10/100 us waveform Repetition rate(duty cycle):0.01 %.
- * Excellent clamping capability.
- * Low incremental surge resistance.
- * Fast response time: $t < 1.0 \text{ ns @ } 0 \text{ V to } V_{(BR)}$ (typ).
- * Ideal for data line applications.
- * High temperature soldering guaranteed: $265^\circ\text{C}/10\text{sec}$, 0.375"(9.5mm) lead length, 51bs, (2.3kg)tension.

Peak Pulse Power
500 Watts
Sand-off Voltage
5.0 to 50 Volts



Mechanical Data:

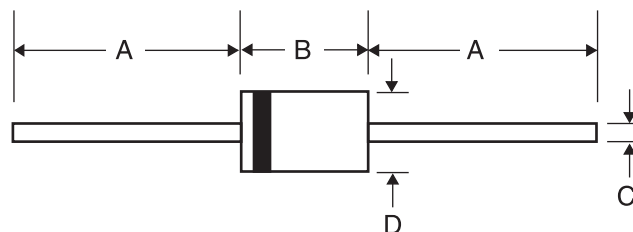
- * Case: JEDEC DO-15 molded plastic over a passivated junction.
- * Terminal: Solder plated axial leads solderable per MIL-STD-750, method 2026
- * Polarity: Color band denotes positive end (cathode).
- * Mounting position: Any.
- * Weight: 0.015 Ounce, 0.4 gram.



DO-15 Outline Dimensions

Unit: mm

Axial Device



Dim	A		B		C		D	
	Min	Max	Min	Max	Min	Max	Min	Max
DO-15	25.4	-	5.8	7.6	0.71	0.86	2.6	3.6

Maximum Rating($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Value	Units
Peak Pulse Power Dissipation with a 10/1000 us waveform ⁽¹⁾	P_{PPM}	Minimum 500	W
Steady State Power Dissipation at $T_L=75^{\circ}\text{C}$ with lead lengths or 0.375"(9.5mm)	$P_{M(AV)}$	3	W
Peak Pulse Power Surge Current with a 10/1000 us waveform ⁽¹⁾ FIG3.	I_{PPM}	See Table 1	A
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	$^{\circ}\text{C}$

Note:

1. Non-repetitive current pulse, per FIG3. and derated above $T_A=25^{\circ}\text{C}$ per FIG2.

Electrical Characteristics($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

PART NUMBER	STANDOFF VOLTAGE V_{WM} (V)	MAXIMUM BREAKDOWN VOLTAGE AT $I_T=1.0\text{mA}$ $V(BR)$ (V)	MAXIMUM REVERSE LEAKAGE AT V_{WM} I_R (μA)	MAXIMUM CLAMPING VOLTAGE AT $I_{pp}=5.0\text{A}$ V_c (V)	MAXIMUM PEAK PULSE CURRENT PER FIG.3 I_{pp} (A)	MAXIMUM JUNCTION CAPACITANCE AT 0 VOLTS (pF)	WORKING INVERSE BLOCKING VOLTAGE V_{WIB} (V)	INVERSE BLOCKING LEAKAGE CURRENT V_{WIB} I_{IB} (mA)	PEAK INVERSE BLOCKING VOLTAGE V_{PIB} (V)
SAC5.0	5.00	7.60	300	10.0	44.0	50	75	1.0	100
SAC6.0	6.00	7.90	300	11.2	41.0	50	75	1.0	100
SAC7.0	7.00	8.33	300	12.6	38.0	50	75	1.0	100
SAC8.0	8.00	8.89	100	13.4	36.0	50	75	1.0	100
SAC8.5	8.50	9.44	50	14.0	34.0	50	75	1.0	100
SAC10	10.00	11.10	5	16.3	29.0	50	75	1.0	100
SAC12	12.00	13.30	5	19.0	25.0	50	75	1.0	100
SAC15	15.00	16.70	5	23.6	20.0	50	75	1.0	100
SAC18	18.00	20.00	5	28.8	15.0	50	75	1.0	100
SAC22	22.00	24.40	5	35.4	14.0	50	75	1.0	100
SAC26	26.00	28.90	5	42.3	11.1	50	75	1.0	100
SAC30	30.00	33.30	5	48.6	10.0	50	75	1.0	100
SAC36	36.00	40.00	5	60.0	8.6	50	75	1.0	100
SAC45	45.00	50.00	5	77.0	6.8	50	150	1.0	200
SAC50	51.00	55.50	5	88.0	5.8	50	150	1.0	200

FIG.1- PEAK PULSE POWER RATING CURVE

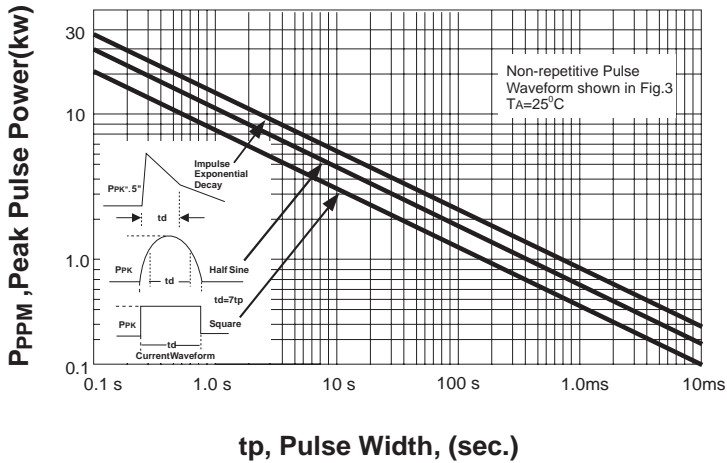
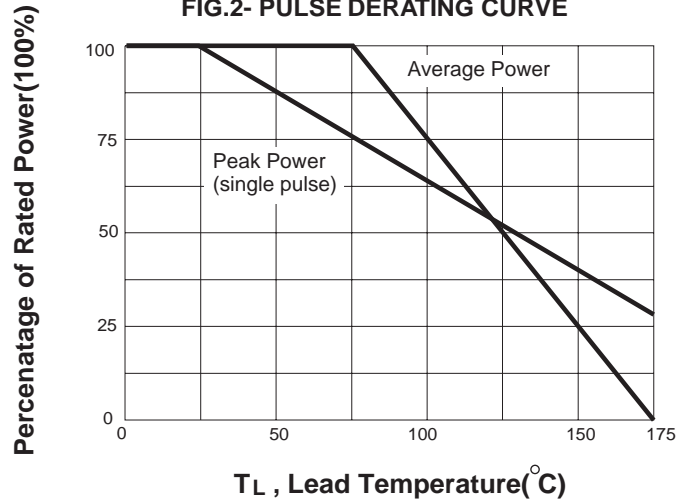


FIG.2- PULSE DERATING CURVE



t_p , Pulse Width, (sec.)

T_L , Lead Temperature ($^{\circ}\text{C}$)

FIG.3- PULSE WAVEFORM

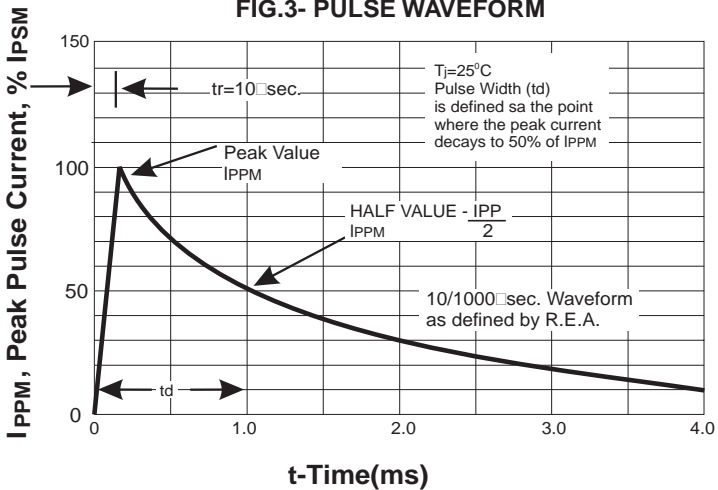
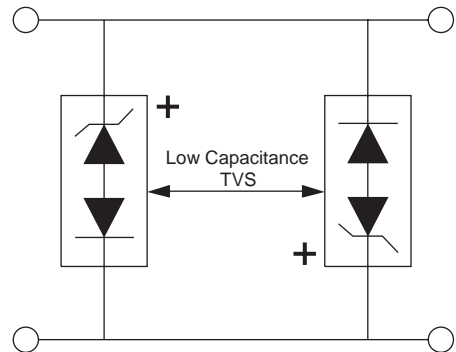


FIG. 4 - AC Line Protection Application



Application Note: Device must be used with two units in parallel, opposite in polarity as shown in circuit for AC signal line protection