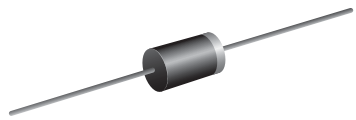
SAC5.0 - SAC50

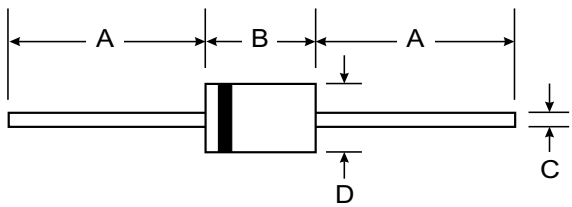
LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR DIODE

VOLTAGE RANGE: 5.0 - 50V
POWER: 500Watts



Features

- 500W Peak Pulse Surge reverse capability on 10/1000μs waveform
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time : typically less than 1.0 ns from 0 volts to BV



DO-15		
Dim	**Min**	**Max**
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

Mechanical Data

- Case : DO-15 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.465 gram

RoHS COMPLIANT

Maximum Ratings T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000μs waveform (Note 1, Figure 1)	P_{PPM}	Minimum 500	Watts
Steady State Power Dissipation at T_L = 75 °C Lead Lengths 0.375", (9.5mm)	P_D	1.0	Watts
Peak Forward Surge Current on 10/1000 μs Waveform (Fig. 3, Note 1)	I_{FSM}	See Table 1.	Amps.
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 175	°C

Note :

(1) Non-repetitive Current pulse, per Fig. 5 and derated above Ta = 25 °C per Fig. 2

ELECTRICAL CHARACTERISTICS Rating at 25 °C ambient temperature unless otherwise specified

TYPE	Breakdown Voltage @ It		Reverse Stand-off Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Clamping Voltage @ I_{RSM}=5A	Maximum Reverse Current	Maximum Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Max. Inverse Blocking Current @ V_{WIB}	Peak Inverse Blocking Voltage
	V_{BR} (V)	It	V_{RWM}	I_R	V_{RSM}	I_{RSM}		V_{WIB}	I_{IB}	V_{PIB}
	Min.	(mA)	(V)	(μA)	(V)	(A)	pF	(V)	mA	(V)
SAC5.0	7.6	1.0	5.0	300	10.0	44	50	75	1.0	100
SAC6.0	7.9	1.0	6.0	300	11.2	41	50	75	1.0	100
SAC7.0	8.3	1.0	7.0	300	12.6	38	50	75	1.0	100
SAC8.0	8.9	1.0	8.0	100	13.4	36	50	75	1.0	100
SAC8.5	9.4	1.0	8.5	50	14.0	34	50	75	1.0	100
SAC10	11.1	1.0	10	5.0	16.3	29	50	75	1.0	100
SAC12	13.3	1.0	12	5.0	19.0	25	50	75	1.0	100
SAC15	16.7	1.0	15	5.0	23.6	20	50	75	1.0	100
SAC18	20.0	1.0	18	5.0	28.8	15	50	75	1.0	100
SAC22	24.4	1.0	22	5.0	35.4	14	50	75	1.0	100
SAC26	28.9	1.0	26	5.0	42.3	11.1	50	75	1.0	100
SAC30	33.3	1.0	30	5.0	48.6	10	50	75	1.0	100
SAC36	40.0	1.0	36	5.0	60.0	8.6	50	75	1.0	100
SAC45	50.0	1.0	45	5.0	77.0	6.8	50	150	1.0	200
SAC50	55.5	1.0	50	5.0	88.0	5.8	50	150	1.0	200

FIG.1 - PEAK PULSE POWER RATING CURVE

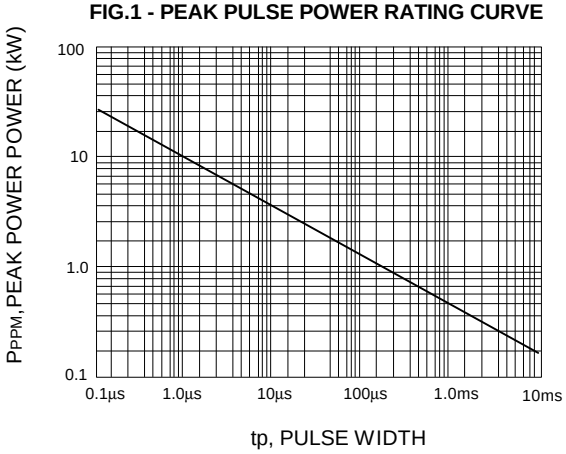


FIG.2 - PULSE DERATING CURVE

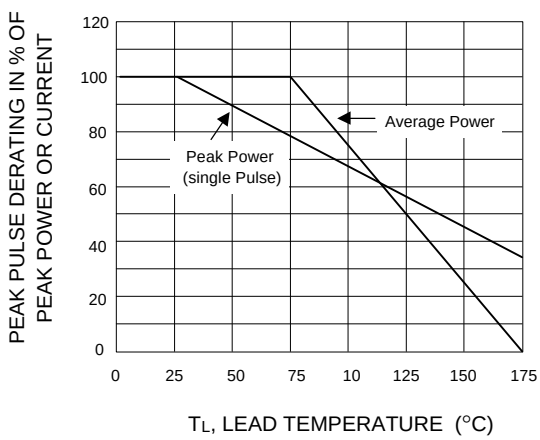


FIG.3 - PULSE WAVEFORM