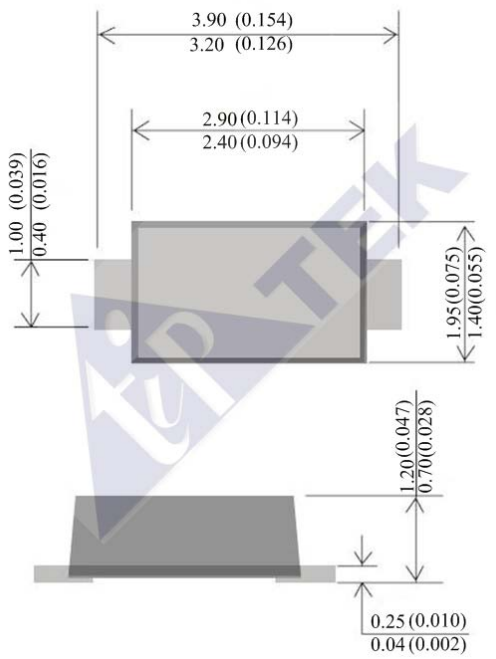
200W SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR



CASE：SOD-123L

DIMENSIONS IN MILLIMETERS AND (INCHES)

FEATURES

- Glass passivated chip
- 200 W peak pulse power capability witha 10/1000 μs waveform, repetitive rate(duty cycle):0.01 %
- Low leakage
- Uni and Bidirectional unit.
- Excellent clamping capability
- Very fast response time

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
- Polarity: Color band denotes cathode enexcept Bipolar
- Mounting position: Any
- Pb- Free: SMF5.0A~SMF190CA
  Halogen Free: SMF5.0A-H~SMF190CA-H

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNITS
PEAK PULSE POWER DISSIPATION ON 1 0/1000μS WAVEFORM (NOTE 1, FIG. 2)	P_{PPM}	200	WATTS
PEAK PULSE CURRENT OF 0N 10/1000 μ S WAVEFORM (NOTE 1)	I_{PPM}	SEE TABLE 1	A
STEADY STATE POWER DISSIPATION AT TL=75℃(NOTE 2)	$P_{M(AV)}$	0.4	WATTS
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD (JEDEC METHOD) (NOTE 2)	I_{FSM}	20.0	A
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE AT 25.0A FOR UNIDIRECTIONAL ONLY (NOTE 3)	V_F	3.5	V
OPERATING AND STORAGE TEMPERATURE RANGE	T_J, T_{STG}	- 55 TO + 150	℃

NOTE: 1. NON-REPETITIVE CURRENT PULSE, PER FIG.3 AND DERATED ABOVE T_A=25℃PER FIG 2.
2. MEASURED ON 8.3mS SINGLE HALF SINE-WAVE. FOR UNI-DIRECTINAL DEVICES ONLY

Part Number		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
		V_{RWM}	V_{BR} @ I_T		I_T	I_R @ V_{RWM}	Vc @ Ipp	Ipp
			Min	Max				
UNI	BI	V	V	V	mA	μA	V	A
SMF5.0A	SMF5.0CA	5.0	6.40	7.00	10.0	400.0	9.2	21.74
SMF6.0A	SMF6.0CA	6.0	6.67	7.37	10.0	400.0	10.3	19.42
SMF6.5A	SMF6.5CA	6.5	7.22	7.98	10.0	250.0	11.2	17.86
SMF7.0A	SMF7.0CA	7.0	7.78	8.60	10.0	100.0	12.0	16.67
SMF7.5A	SMF7.5CA	7.5	8.33	9.21	1.0	50.0	12.9	15.50
SMF8.0A	SMF8.0CA	8.0	8.89	9.83	1.0	25.0	13.6	14.71
SMF8.5A	SMF8.5CA	8.5	9.44	10.40	1.0	10.0	14.4	13.89
SMF9.0A	SMF9.0CA	9.0	10.00	11.10	1.0	5.0	15.4	12.99
SMF10A	SMF10CA	10	11.10	12.30	1.0	2.5	17.0	11.76
SMF11A	SMF11CA	11	12.20	13.50	1.0	2.5	18.2	10.99
SMF12A	SMF12CA	12	13.30	14.70	1.0	2.5	19.9	10.05
SMF13A	SMF13CA	13	14.40	15.90	1.0	1.0	21.5	9.30
SMF14A	SMF14CA	14	15.60	17.20	1.0	1.0	23.2	8.62
SMF15A	SMF15CA	15	16.70	18.50	1.0	1.0	24.4	8.20
SMF16A	SMF16CA	16	17.80	19.70	1.0	1.0	26.0	7.69
SMF17A	SMF17CA	17	18.90	20.90	1.0	1.0	27.6	7.25
SMF18A	SMF18CA	18	20.00	22.10	1.0	1.0	29.2	6.85
SMF19A	SMF19CA	19	21.10	23.30	1.0	1.0	30.6	6.54
SMF20A	SMF20CA	20	22.20	24.50	1.0	1.0	32.4	6.17
SMF22A	SMF22CA	22	24.40	26.90	1.0	1.0	35.5	5.63
SMF24A	SMF24CA	24	26.70	29.50	1.0	1.0	38.9	5.14
SMF26A	SMF26CA	26	28.90	31.90	1.0	1.0	42.1	4.75
SMF28A	SMF28CA	28	31.10	34.10	1.0	1.0	45.4	4.41
SMF30A	SMF30CA	30	33.30	36.80	1.0	1.0	48.4	4.13
SMF33A	SMF33CA	33	36.70	40.60	1.0	1.0	53.3	3.75

Part Number		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
		V_{RWM}	V_{BR} @ I_T		I_T	I_R @ V_{RWM}	Vc @ Ipp	Ipp
			Min	Max				
UNI	BI	V	V	V	mA	μA	V	A
SMF36A	SMF36CA	36	40.00	44.20	1.0	1.0	58.1	3.44
SMF40A	SMF40CA	40	44.40	49.10	1.0	1.0	64.5	3.10
SMF43A	SMF43CA	43	47.80	52.80	1.0	1.0	69.4	2.88
SMF45A	SMF45CA	45	50.00	55.30	1.0	1.0	72.7	2.75
SMF48A	SMF48CA	48	53.30	58.90	1.0	1.0	77.4	2.58
SMF51A	SMF51CA	51	56.70	62.70	1.0	1.0	82.4	2.43
SMF54A	SMF54CA	54	60.00	66.30	1.0	1.0	87.1	2.30
SMF58A	SMF58CA	58	64.40	71.20	1.0	1.0	93.6	2.14
SMF60A	SMF60CA	60	66.70	73.70	1.0	1.0	96.8	2.07
SMF64A	SMF64CA	64	71.10	78.60	1.0	1.0	103.0	1.94
SMF70A	SMF70CA	70	77.80	86.00	1.0	1.0	113.0	1.77
SMF75A	SMF75CA	75	83.30	92.10	1.0	1.0	121.0	1.65
SMF78A	SMF78CA	78	86.70	95.80	1.0	1.0	126.0	1.59
SMF80A	SMF80CA	80	88.80	97.60	1.0	1.0	129.0	1.55
SMF85A	SMF85CA	85	94.40	104.00	1.0	1.0	137.0	1.46
SMF90A	SMF90CA	90	100.00	111.00	1.0	1.0	146.0	1.37
SMF100A	SMF100CA	100	111.00	123.00	1.0	1.0	162.0	1.23
SMF110A	SMF110CA	110	122.00	135.00	1.0	1.0	177.0	1.13
SMF120A	SMF120CA	120	133.00	147.00	1.0	1.0	193.0	1.04
SMF130A	SMF130CA	130	144.00	159.00	1.0	1.0	209.0	0.96
SMF140A	SMF140CA	140	155.00	171.00	1.0	1.0	224.0	0.89
SMF150A	SMF150CA	150	167.00	185.00	1.0	1.0	243.0	0.82
SMF160A	SMF160CA	160	178.00	197.00	1.0	1.0	259.0	0.77
SMF170A	SMF170CA	170	189.00	209.00	1.0	1.0	275.0	0.73
SMF180A	SMF180CA	180	200.00	220.00	1.0	1.0	292.0	0.69
SMF190A	SMF190CA	190	211.00	232.00	1.0	1.0	308.0	0.69

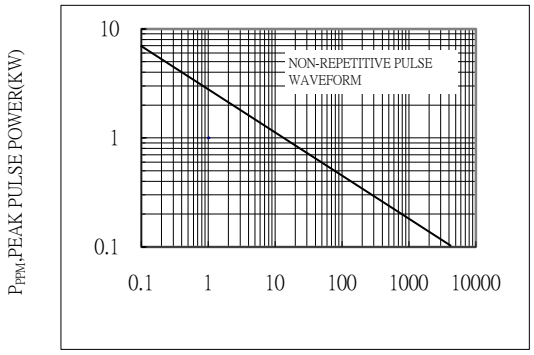


Fig.1-PEAK PULSE POWER RATING CURVE

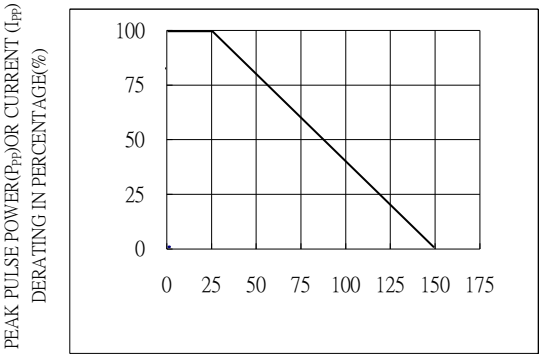


Fig.2-PULSE DERATING CURVE

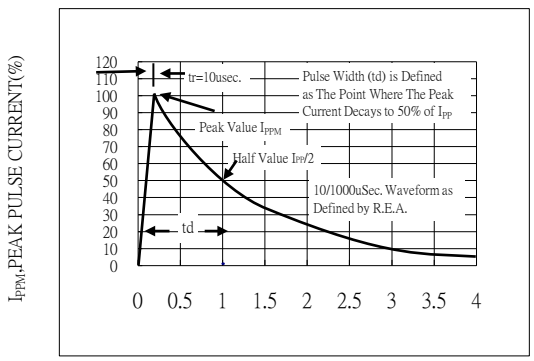


Fig.3-PULSE WAVEFORM

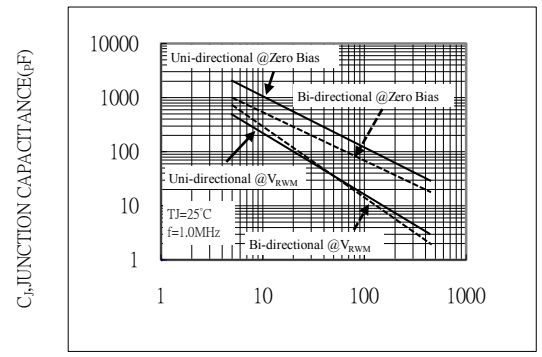


Fig.4-TYPICAL JUNCTION CAPACITANCE UNIDRECTIONAL

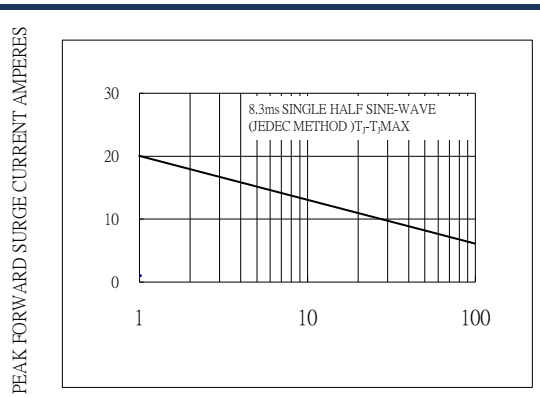


Fig.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

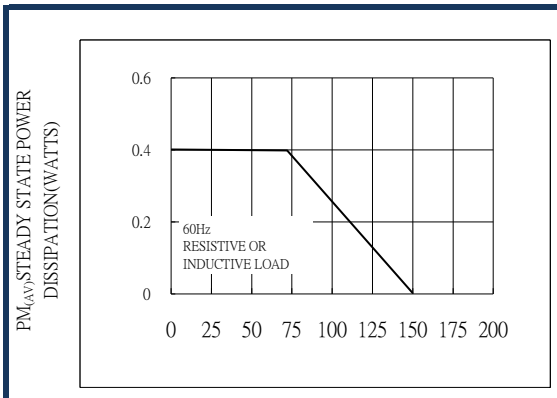


Fig.6-STEADY STATE POWER DERATING CURVE