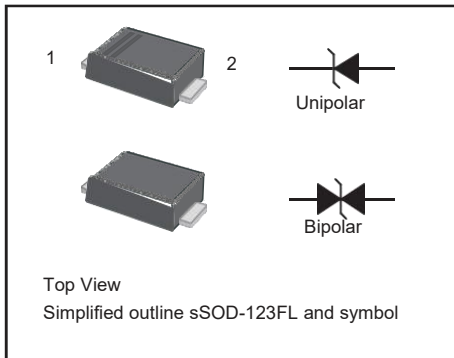


Surface mount transient voltage suppressor power 200 watts

Stand-Off Voltage: 5.0V~220V

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on TA=25°C (Note 1,2,5, Fig1)	P_{PPM}	200	W
Peak Forward Surge Current (Note 3)	I_{FSM} (UNI)	20	A
Peak Pulse Current on 10/1000 us waveform (Note 1) Fig 2	I_{PPM}	see Table 1	A
Steady State Power Dissipation (Note 4)	$P_{M(AV)}$	1	W
Operating Junction and Storage Range	T_J, T_{STG}	-55 to +150	°C
Typical Thermal Resistance	$R_{\theta JA}$	180	°C

NOTES

1. Non-repetitive current pulse per Fig 3 and derated above $T_a=25^\circ\text{C}$ per Fig 2
2. Mounted on 5mm² copper pads to each terminal
3. 8.3ms single half sinewave, or equivalent square wave duty cycle=4 pulses per minutes maximum
4. lead temperature at $T_l=75^\circ\text{C}$
5. Peak pulse powe. waveform is $t_p=10/1000\text{us}$
6. A transient suppressor is selected according to the working peak reverse voltage(V_{RWM}), Which Should be equal to or greater than the DC or continuous peak operating voltage level

Characteristics at Ta = 25°C

Table 1

Type		Marking		Breakdown Voltage			Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
				V _{RWM}	V _{BR} @ I _T					
					Uni	Bi	Uni	Bi	Min	Max
				V	V	V	mA	µA	V	A
SMF 5.0 A	SMF 5.0 CA	AE	CAE	5	6.4	7	10	200	9.2	21.7
SMF 6.0 A	SMF 6.0 CA	AG	CAG	6	6.67	7.37	10	100	10.3	19.4
SMF 6.5 A	SMF 6.5 CA	AK	CAK	6.5	7.22	7.98	10	75	11.2	17.9
SMF 7.0 A	SMF 7.0 CA	AM	CAM	7	7.78	8.6	10	50	12	16.7
SMF 7.5 A	SMF 7.5 CA	AP	CAP	7.5	8.33	9.21	1	50	12.9	15.5
SMF 8.0 A	SMF 8.0 CA	AR	CAR	8	8.89	9.83	1	25	13.6	14.7
SMF 8.5 A	SMF 8.5 CA	AT	CAT	8.5	9.44	10.4	1	10	14.4	13.9
SMF 9.0 A	SMF 9.0 CA	AV	CAV	9	10	11.1	1	5	15.4	13
SMF 10 A	SMF 10 CA	AX	CAX	10	11.1	12.3	1	2.5	17	11.8
SMF 11 A	SMF 11 CA	AZ	CAZ	11	12.2	13.5	1	2.5	18.2	11
SMF 12 A	SMF 12 CA	BE	CBE	12	13.3	14.7	1	2.5	19.9	10.1
SMF 13 A	SMF 13 CA	BG	CBG	13	14.4	15.9	1	1	21.5	9.3
SMF 14 A	SMF 14 CA	BK	CBK	14	15.6	17.2	1	1	23.2	8.6
SMF 15 A	SMF 15 CA	BM	CBM	15	16.7	18.5	1	1	24.4	8.2
SMF 16 A	SMF 16 CA	BP	CBP	16	17.8	19.7	1	1	26	7.7
SMF 17 A	SMF 17 CA	BR	CBR	17	18.9	20.9	1	1	27.6	7.2
SMF 18 A	SMF 18 CA	BT	CBT	18	20	22.1	1	1	29.2	6.8
SMF 20 A	SMF 20 CA	BV	CBV	20	22.2	24.5	1	1	32.4	6.2
SMF 22 A	SMF 22 CA	BX	CBX	22	24.4	26.9	1	1	35.5	5.6
SMF 24 A	SMF 24 CA	BZ	CBZ	24	26.7	29.5	1	1	38.9	5.1
SMF 26 A	SMF 26 CA	CE	CCE	26	28.9	31.9	1	1	42.1	4.8
SMF 28 A	SMF 28 CA	CG	CCG	28	31.1	34.4	1	1	45.4	4.4
SMF 30 A	SMF 30 CA	CK	CCK	30	33.3	36.8	1	1	48.4	4.1
SMF 33 A	SMF 33 CA	CM	CCM	33	36.7	40.6	1	1	53.3	3.8
SMF 36 A	SMF 36 CA	CP	CCP	36	40	44.2	1	1	58.1	3.4
SMF 40 A	SMF 40 CA	CR	CCR	40	44.4	49.1	1	1	64.5	3.1
SMF 43 A	SMF 43 CA	CT	CCT	43	47.8	52.8	1	1	69.4	2.9
SMF 45 A	SMF 45 CA	CV	CCV	45	50	55.3	1	1	72.7	2.8
SMF 48 A	SMF 48 CA	CX	CCX	48	53.3	58.9	1	1	77.4	2.6
SMF 51 A	SMF 51 CA	CZ	CCZ	51	56.7	62.7	1	1	82.4	2.4
SMF 54 A	SMF 54 CA	DE	CDE	54	60	66.3	1	1	87.1	2.3
SMF 58 A	SMF 58 CA	DG	CDG	58	64.4	71.2	1	1	93.6	2.1
SMF 60 A	SMF 60 CA	DK	CDK	60	66.7	73.7	1	1	96.8	1.8
SMF 64 A	SMF 64 CA	DM	CDM	64	71.1	78.6	1	1	103	1.7
SMF 70 A	SMF 70 CA	DP	CDP	70	77.8	86	1	1	113	1.5
SMF 75 A	SMF 75 CA	DR	CDR	75	83.3	92.1	1	1	121	1.4
SMF 78 A	SMF 78 CA	DT	CDT	78	86.7	95.8	1	1	126	1.4
SMF 85 A	SMF 85 CA	DV	CDV	85	94.4	104	1	1	137	1.3
SMF 90 A	SMF 90 CA	DX	CDX	90	100	111	1	1	146	1.2
SMF 100 A	SMF 100 CA	DZ	CDZ	100	111	123	1	1	162	1.1
SMF 110 A	SMF 110 CA	EE	CEE	110	122	135	1	1	177	1
SMF 120 A	SMF 120 CA	EG	CEG	120	133	147	1	1	193	0.9
SMF 130 A	SMF 130 CA	EK	CEK	130	144	159	1	1	209	0.8
SMF 150 A	SMF 150 CA	EM	CEM	150	167	185	1	1	243	0.7
SMF 160 A	SMF 160 CA	EP	CEP	160	178	197	1	1	259	0.7
SMF 170 A	SMF 170 CA	ER	CER	170	189	209	1	1	275	0.6
SMF 180 A	SMF 180 CA	ET	CET	180	201	222	1	1	292	0.5
SMF 200 A	SMF 200 CA	EX	CEX	200	224	247	1	1	324	0.5
SMF 220 A	SMF 220 CA	E22	CE22	220	246	272	1	1	356	0.5

Fig.1 Peak Pulse Power Rating Curve

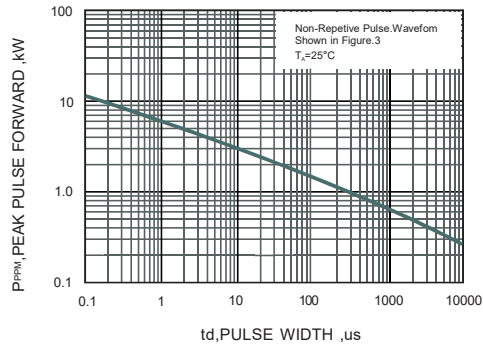


Fig.2 Forward Current Derating Curve

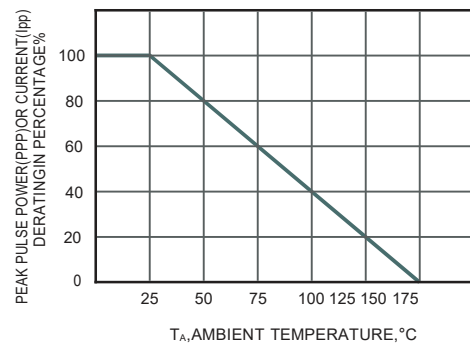


Fig.3 Pulse Waveform

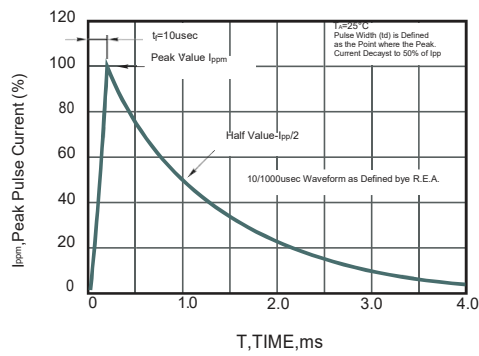
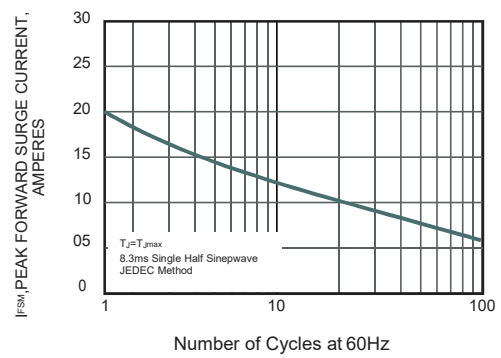


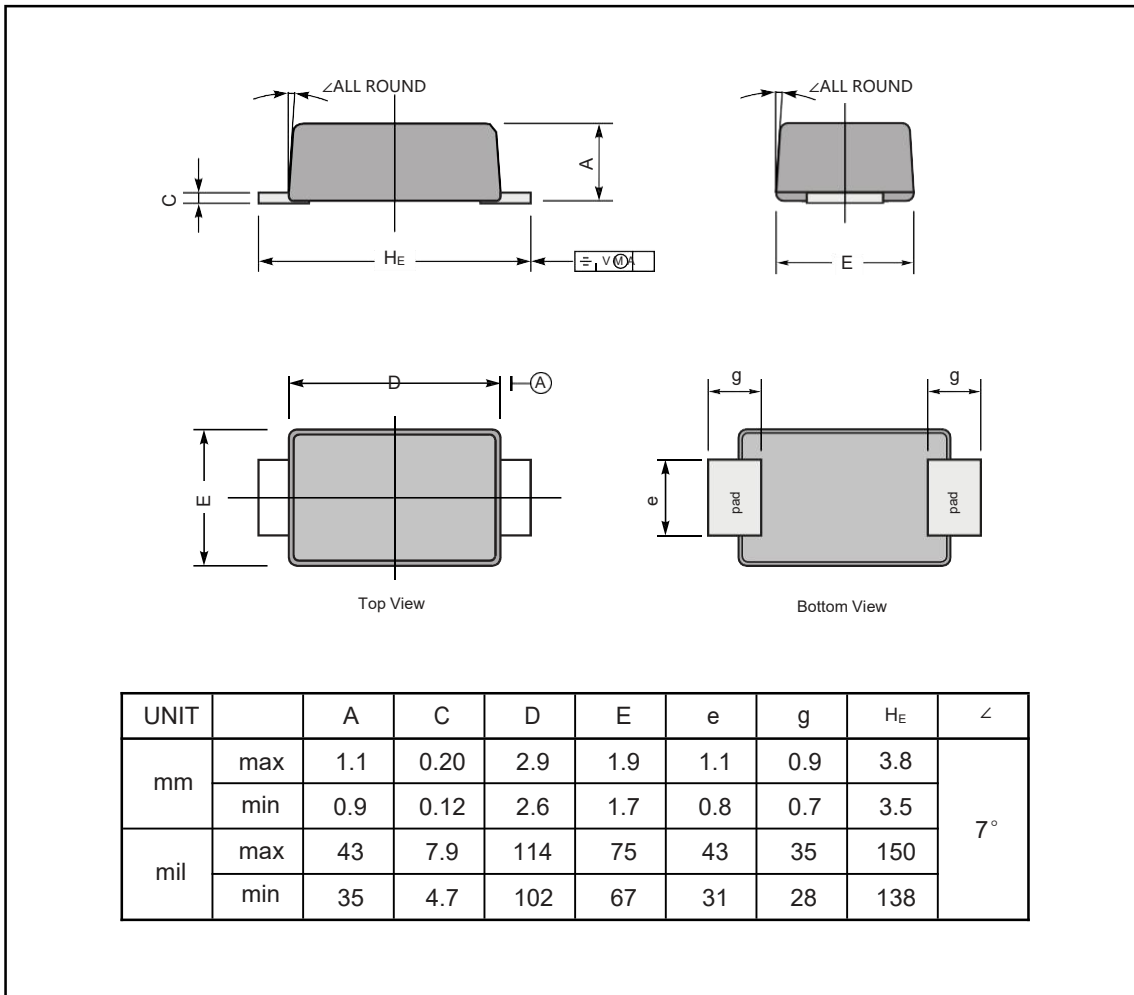
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



The recommended mounting pad size

