

Features

- For surface mounted applications in order to optimize board space.
- Low profile package.
- Excellent clamping capability.
- IEC61000-4-2 ESD 15kV Air, 8kV contact compliance
- Protects one I/O line
- Lead-free parts meet RoHS requirements.
- Meet HF requirements.

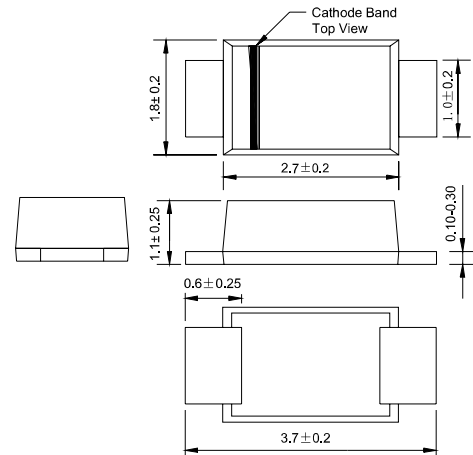
Applications

- Personal digital assistants (PDA)
- Cellular handsets & Accessories
- Portable devices
- Portable instrumentation
- Handhelds and notebooks
- Digital cameras

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.02 gram

SOD-123FL



Dimensions in millimeters

Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	Value	UNIT
Peak Power Dissipation	Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$ by 10x1000us (Note 1)	P_{PPM}	200	W
Operating junction temperature range		T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note: 1. Non-repetitive current pulse, per Fig. 2 and derated above $T_A=25^{\circ}\text{C}$ per Fig. 1



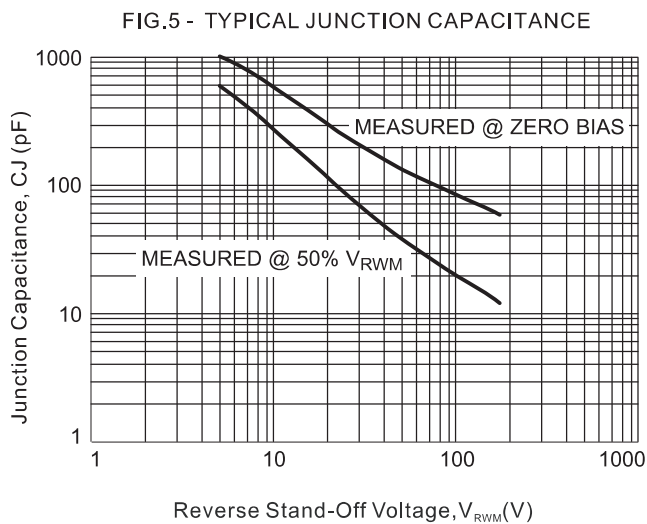
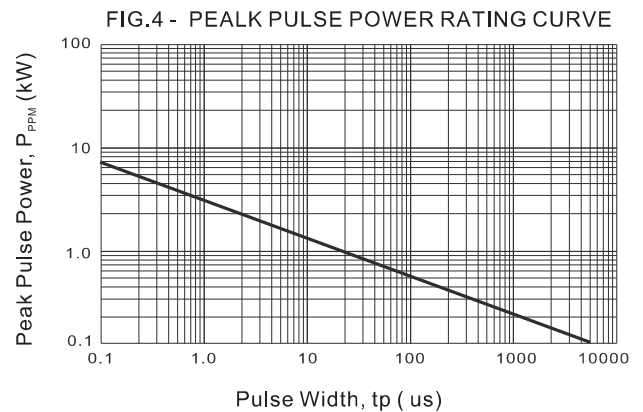
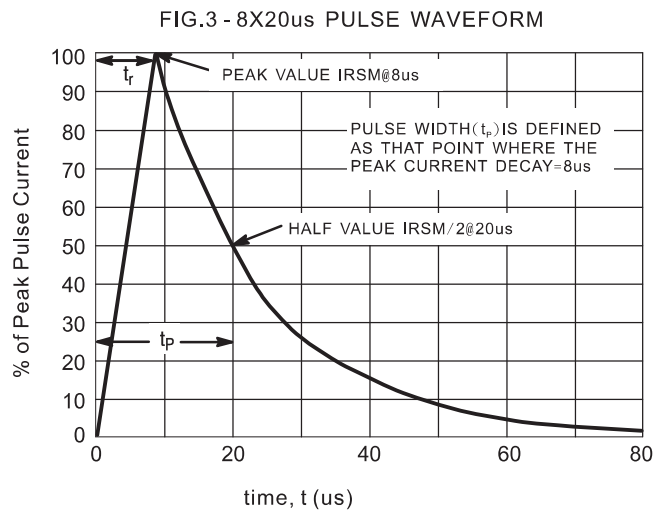
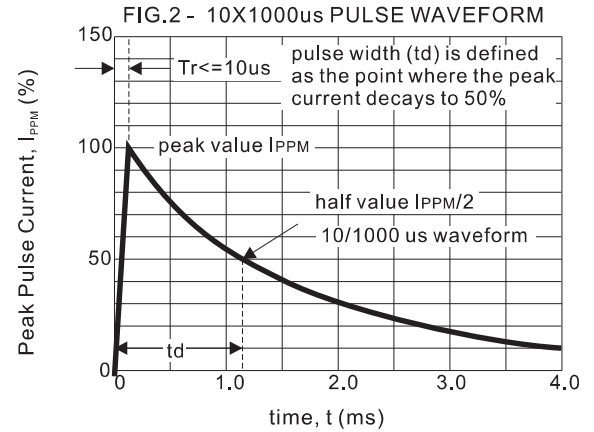
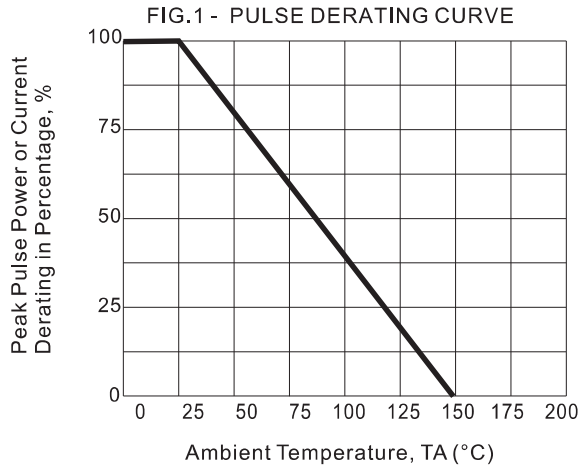
SMF5.0(C)A~ SMF170(C)A

200W Surface Mount Unidirectional and Bidirectional

Characteristics at Ta = 25°C

Table 1

Type		Marking		V _{RWM}	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
					V _{BR} @ I _T		I _T	I _R @ V _{RWM}	V _C @ I _{PP}	I _{PP}
					Min	Max				
Uni	Bi	Uni	Bi	V	V	V	mA	μA	V	A
SMF5.0A	SMF5.0CA	AE	CAE	5	6.4	7	10	200	9.2	21.7
SMF6.0A	SMF6.0CA	AG	CAG	6	6.67	7.37	10	100	10.3	19.4
SMF6.5A	SMF6.5CA	AK	CAK	6.5	7.22	7.98	10	75	11.2	17.9
SMF7.0A	SMF7.0CA	AM	CAM	7	7.78	8.6	10	50	12	16.7
SMF7.5A	SMF7.5CA	AP	CAP	7.5	8.33	9.21	1	50	12.9	15.5
SMF8.0A	SMF8.0CA	AR	CAR	8	8.89	9.83	1	25	13.6	14.7
SMF8.5A	SMF8.5CA	AT	CAT	8.5	9.44	10.4	1	10	14.4	13.9
SMF9.0A	SMF9.0CA	AV	CAV	9	10	11.1	1	5	15.4	13
SMF10A	SMF10CA	AX	CAX	10	11.1	12.3	1	2.5	17	11.8
SMF11A	SMF11CA	AZ	CAZ	11	12.2	13.5	1	2.5	18.2	11
SMF12A	SMF12CA	BE	CBE	12	13.3	14.7	1	2.5	19.9	10.1
SMF13A	SMF13CA	BG	CBG	13	14.4	15.9	1	1	21.5	9.3
SMF14A	SMF14CA	BK	CBK	14	15.6	17.2	1	1	23.2	8.6
SMF15A	SMF15CA	BM	CBM	15	16.7	18.5	1	1	24.4	8.2
SMF16A	SMF16CA	BP	CBP	16	17.8	19.7	1	1	26	7.7
SMF17A	SMF17CA	BR	CBR	17	18.9	20.9	1	1	27.6	7.2
SMF18A	SMF18CA	BT	CBT	18	20	22.1	1	1	29.2	6.8
SMF20A	SMF20CA	BV	CBV	20	22.2	24.5	1	1	32.4	6.2
SMF22A	SMF22CA	BX	CBX	22	24.4	26.9	1	1	35.5	5.6
SMF24A	SMF24CA	BZ	CBZ	24	26.7	29.5	1	1	38.9	5.1
SMF26A	SMF26CA	CE	CCE	26	28.9	31.9	1	1	42.1	4.8
SMF28A	SMF28CA	CG	CCG	28	31.1	34.4	1	1	45.4	4.4
SMF30A	SMF30CA	CK	CCK	30	33.3	36.8	1	1	48.4	4.1
SMF33A	SMF33CA	CM	CCM	33	36.7	40.6	1	1	53.3	3.8
SMF36A	SMF36CA	CP	CCP	36	40	44.2	1	1	58.1	3.4
SMF40A	SMF40CA	CR	CCR	40	44.4	49.1	1	1	64.5	3.1
SMF43A	SMF43CA	CT	CCT	43	47.8	52.8	1	1	69.4	2.9
SMF45A	SMF45CA	CV	CCV	45	50	55.3	1	1	72.7	2.8
SMF48A	SMF48CA	CX	CCX	48	53.3	58.9	1	1	77.4	2.6
SMF51A	SMF51CA	CZ	CCZ	51	56.7	62.7	1	1	82.4	2.4
SMF54A	SMF54CA	DE	CDE	54	60	66.3	1	1	87.1	2.3
SMF58A	SMF58CA	DG	CDG	58	64.4	71.2	1	1	93.6	2.1
SMF60A	SMF60CA	DK	CDK	60	66.7	73.7	1	1	96.8	1.8
SMF64A	SMF64CA	DM	CDM	64	71.1	78.6	1	1	103	1.7
SMF70A	SMF70CA	DP	CDP	70	77.8	86	1	1	113	1.5
SMF75A	SMF75CA	DR	CDR	75	83.3	92.1	1	1	121	1.4
SMF78A	SMF78CA	DT	CDT	78	86.7	95.8	1	1	126	1.4
SMF85A	SMF85CA	DV	CDV	85	94.4	104	1	1	137	1.3
SMF90A	SMF90CA	DX	CDX	90	100	111	1	1	146	1.2
SMF100A	SMF100CA	DZ	CDZ	100	111	123	1	1	162	1.1
SMF110A	SMF110CA	EE	CEE	110	122	135	1	1	177	1
SMF120A	SMF120CA	EG	CEG	120	133	147	1	1	193	0.9
SMF130A	SMF130CA	EK	CEK	130	144	159	1	1	209	0.8
SMF150A	SMF150CA	EM	CEM	150	167	185	1	1	243	0.7
SMF160A	SMF160CA	EP	CEP	160	178	197	1	1	259	0.7
SMF170A	SMF170CA	ER	CER	170	189	209	1	1	275	0.6
SMF180A	SMF180CA	ET	CET	180	201	222	1	1	292	0.5
SMF200A	SMF200CA	EX	CEX	200	224	247	1	1	324	0.5
SMF220A	SMF220CA	E22	CE22	220	246	272	1	1	356	0.5

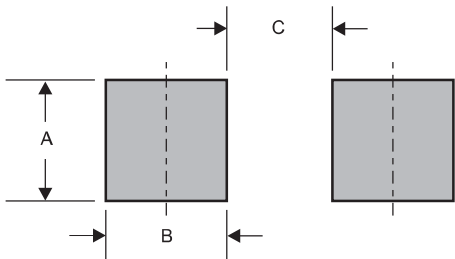
Rating and characteristic curves (SMF SERIES)




Pinning information

Pin	Simplified outline	Symbol
Uni-Directional Pin1 cathode Pin2 anode		
Bi-Directional		

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.044 (1.10)	0.040 (1.00)	0.079 (2.00)