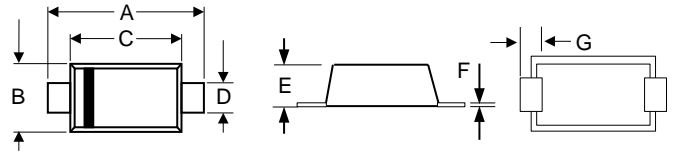


Features

- * 200W peak pulse power dissipation
- * 5.0V - 220V standoff voltages
- * Glass passivated die construction
- * Uni- and Bi-Directional versions available
- * Excellent clamping capability
- * Fast response time
- * Plastic material: UL flammability classification rating 94V-0



RoHS
COMPLIANT



SOD-123F				
DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.138	0.154	3.50	3.90
B	0.067	0.075	1.70	1.90
C	0.106	0.114	2.70	2.90
D	0.031	0.047	0.80	1.20
E	0.045	0.057	1.15	1.45
F	0.004	0.012	0.10	0.30
G	0.014	0.033	0.35	0.85

Mechanical Data

- * Case: JEDEC SOD-123F molded plastic body
- * Terminals: Solderable per MIL-STD-750, Method 2026
- * Polarity Indicator: Cathode Band (Note: Bi-directional devices have no polarity indicator.)
- * Weight: 0.064 grams (approx.)

Maximum Ratings (T_A=25°C unless otherwise noted)

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above T _A = 25 °C) (Note 1)	P _{PK}	200	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3)	I _{FSM}	20	A
Steady State Power Dissipation @ T _L = 75 °C	P _{M(AV)}	0.5	W
Instantaneous Forward Voltage @ I _{PP} = 25A (Notes 1, 2, & 3)	V _F	3.5	V
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

Note:

1. Valid provided that terminals are kept at ambient temperature.
2. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
3. Unidirectional units only.



SMF5.0(C)A THRU SMF220(C)A

Glass Passivated Junction Transient Voltage Suppressors

Electrical Characteristics (T_A=25°C unless otherwise noted)

Part Number (Note4)		Stand-off Voltage	Breakdown Voltage (V _{BR}) (Note5)		Test Current I _T (mA)	Maximum Reverse Leakage IR @V _{WM} (Note6) (μA)	Maximum Peak Pulse Current I _{PPM} (A)	Maximum Clamping Voltage V _c @ I _{PPM} (V)	Marking Code	
Uni	Bi		V _{WM} (V)	Min(V)					Max(V)	Uni
SMF5.0A	SMF5.0CA	5.0	6.4	7.3	10	800	21.7	9.2	KE	TE
SMF6.0A	SMF6.0CA	6.0	6.67	7.37	10	800	19.4	10.3	KG	TG
SMF6.5A	SMF6.5CA	6.5	7.22	7.98	10	500	17.9	11.2	KK	TK
SMF7.0A	SMF7.0CA	7.0	7.78	8.6	10	200	16.7	12	KM	TM
SMF7.5A	SMF7.5CA	7.5	8.33	9.21	1.0	100	15.5	12.9	KP	TP
SMF8.0A	SMF8.0CA	8.0	8.89	9.83	1.0	50	14.7	13.6	KR	TR
SMF8.5A	SMF8.5CA	8.5	9.44	10.4	1.0	10	13.9	14.4	KT	TT
SMF9.0A	SMF9.0CA	9.0	10	11.1	1.0	5.0	13	15.4	KV	TV
SMF10A	SMF10CA	10	11.1	12.3	1.0	5.0	11.8	17	KX	TX
SMF11A	SMF11CA	11	12.2	13.5	1.0	5.0	11	18.2	KZ	TZ
SMF12A	SMF12CA	12	13.3	14.7	1.0	5.0	10.1	19.9	LE	UE
SMF13A	SMF13CA	13	14.4	15.9	1.0	5.0	9.3	21.5	LG	UG
SMF14A	SMF14CA	14	15.6	17.2	1.0	5.0	8.6	23.2	LK	UK
SMF15A	SMF15CA	15	16.7	18.5	1.0	5.0	8.2	24.4	LM	UM
SMF16A	SMF16CA	16	17.8	19.7	1.0	5.0	7.7	26	LP	UP
SMF17A	SMF17CA	17	18.9	20.9	1.0	5.0	7.2	27.6	LR	UR
SMF18A	SMF18CA	18	20	22.1	1.0	5.0	6.8	29.2	LT	UT
SMF20A	SMF20CA	20	22.2	24.5	1.0	5.0	6.2	32.4	LV	UV
SMF22A	SMF22CA	22	24.4	26.9	1.0	5.0	5.6	35.5	LX	UX
SMF24A	SMF24CA	24	26.7	29.5	1.0	5.0	5.1	38.9	LZ	UZ
SMF26A	SMF26CA	26	28.9	31.9	1.0	5.0	9.5	42.1	ME	VE
SMF28A	SMF28CA	28	31.1	34.4	1.0	5.0	8.8	45.4	MG	VG
SMF30A	SMF30CA	30	33.3	36.8	1.0	5.0	8.3	48.4	MK	VK
SMF33A	SMF33CA	33	36.7	40.6	1.0	5.0	7.5	53.3	MM	VM
SMF36A	SMF36CA	36	40	44.2	1.0	5.0	6.9	58.1	MP	VP
SMF40A	SMF40CA	40	44.4	49.1	1.0	5.0	6.2	64.5	MR	VR
SMF43A	SMF43CA	43	47.8	52.8	1.0	5.0	5.7	69.4	MT	VT
SMF45A	SMF45CA	45	50	55.3	1.0	5.0	5.5	72.7	MV	VV
SMF48A	SMF48CA	48	53.3	58.9	1.0	5.0	5.2	77.4	MX	VX
SMF51A	SMF51CA	51	56.7	62.7	1.0	5.0	4.9	82.4	MZ	VZ
SMF54A	SMF54CA	54	60	66.3	1.0	5.0	4.6	87.1	NE	WE
SMF58A	SMF58CA	58	64.4	71.2	1.0	5.0	4.3	93.6	NG	WG
SMF60A	SMF60CA	60	66.7	73.7	1.0	5.0	4.1	96.8	NK	WK
SMF64A	SMF64CA	64	71.1	78.6	1.0	5.0	3.9	103	NM	WM
SMF70A	SMF70CA	70	77.8	86	1.0	5.0	3.5	113	NP	WP
SMF75A	SMF75CA	75	83.3	92.1	1.0	5.0	3.3	121	NR	WR
SMF78A	SMF78CA	78	86.7	95.8	1.0	5.0	2.2	126	NT	WT
SMF85A	SMF85CA	85	94.4	104	1.0	5.0	2.9	137	NV	WV
SMF90A	SMF90CA	90	100	111	1.0	5.0	2.7	146	NX	WX
SMF100A	SMF100CA	100	111	123	1.0	5.0	2.5	162	NZ	WZ
SMF110A	SMF110CA	110	122	135	1.0	5.0	2.3	177	PE	XE
SMF120A	SMF120CA	120	133	147	1.0	5.0	2.0	193	PG	XG
SMF130A	SMF130CA	130	144	159	1.0	5.0	1.9	209	PK	XK
SMF150A	SMF150CA	150	167	185	1.0	5.0	1.6	243	PM	XM
SMF160A	SMF160CA	160	178	197	1.0	5.0	1.5	259	PP	XP
SMF220A	SMF220CA	220	246	272	1.0	5.0	0.6	356	-	-

Note:

4. Suffix C denotes Bi-directional device.
5. V_{BR} measured with I_T current pulse = 300 μs
6. For Bi-Directional devices having V_{RWM} of 10V and under, the I_R is doubled.

Ratings and Characteristic Curves

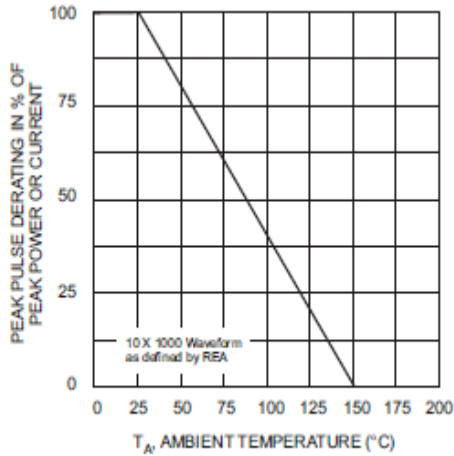


Fig. 1 Pulse Derating Curve

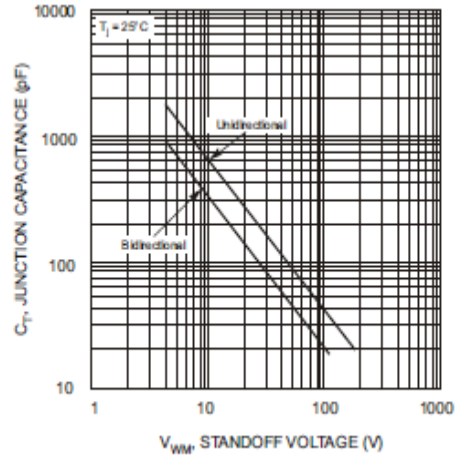


Fig. 2 Typical Total Capacitance

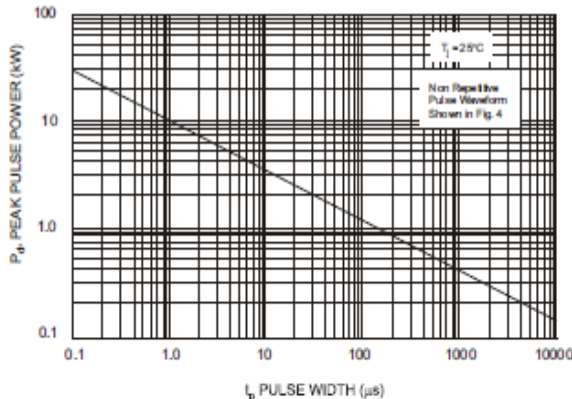


Fig. 3 Pulse Rating Curve

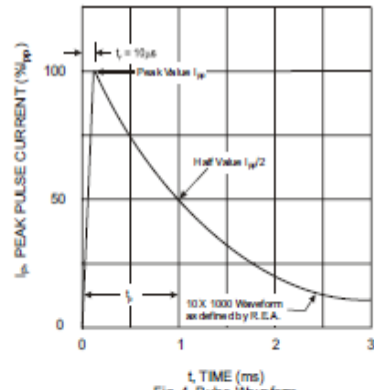


Fig. 4 Pulse Waveform

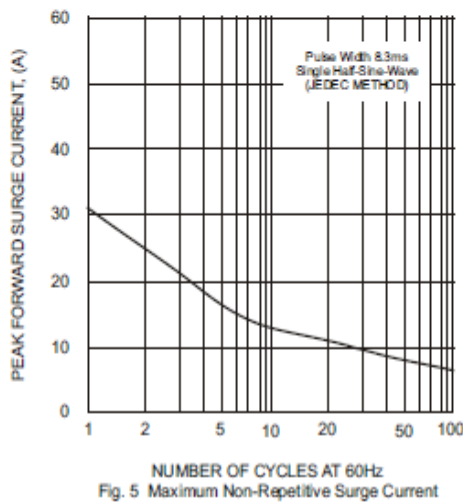


Fig. 5 Maximum Non-Repetitive Surge Current

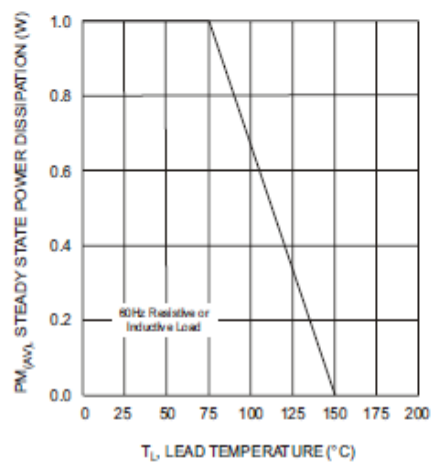


Fig. 6 Steady State Power Derating Curve



SMF5.0(C)A THRU SMF220(C)A

Glass Passivated Junction Transient Voltage Suppressors

Ordering Information

Part No.	Package	Packing Code	Packing
SMF5.0(C)A THRU SMF220(C)A	SOD-123F	R30	3000pcs/Reel

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