

特性:

- ◆ Peak Power – 200 Watts @ 1 ms (SMF5.0A – SMF58A)
– 175 Watts @ 1 ms (SMF60A – SMF170A)

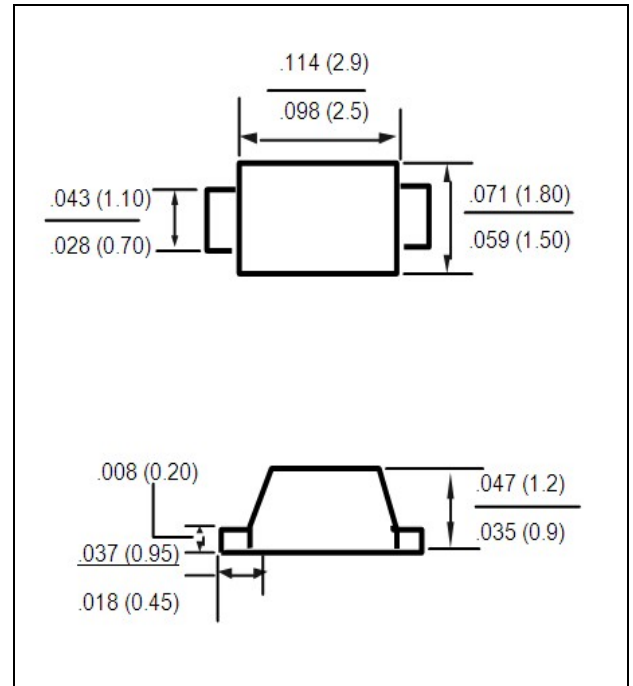
- ◆ Maximum Clamp Voltage @ Peak Pulse Current

ESD Rating of Class 3 (> 16 kV) per Human Body Model
IEC61000-4-2 Level 4 ESD Protection
IEC61000-4-4 40 A ESD Protection

- ◆ Low Leakage
- ◆ Small Footprint – Footprint Area of 8.45 mm²
- ◆ Supplied in 8 mm Tape and Reel – 3,000 Units per Reel
- ◆ Cathode Indicated by Polarity Band

机械性能:

- ◆ **CASE:** Void-free, transfer-molded, thermosetting plastic
Epoxy Meets UL94V-O
- ◆ **LEAD FINISH:** 100% Matte Sn
- ◆ **MOUNTING POSITION:** Any
- ◆ **QUALIFIED MAX REFLOW TEMPERATURE:** 260°C



最大额定值及电气特性

测量环境温度为 25°C，除非另有规定。

Rating	Symbol	Value	Unit
Maximum P _{pk} Dissipation (PW-10/1000 ms) (Note 1) SMF60A – SMF170A	P _{pk}	175	W
Maximum P _{pk} Dissipation (PW-10/1000 ms) (Note 1) SMF5.0A – SMF58A	P _{pk}	200	W
Maximum P _{pk} Dissipation @ T _A = 25°C, (PW-8/20 ms) (Note 2)	P _{pk}	1000	W
DC Power Dissipation @ T _A = 25°C (Note 3) Derate above 25°C	P _D	385	mW
Thermal Resistance from Junction to Ambient (Note 3)	R _{JA}	4.0 325	mW/°C °C/W
Thermal Resistance from Junction to Lead (Note 3)	R _{θ(ja)}	26	°C
Operating and Storage Temperature Range	T _J , T _{stg}	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse at T_A = 25°C, per waveform of Figure 2.
2. Non-repetitive current pulse at T_A = 25°C per waveform of Figure 3.
3. Mounted with recommended minimum pad size, DC board FR-4.
4. TL = 30°C unless otherwise noted, VF = 1.25 Volts @ 200 mA

电特性 (测量环境温度为 25℃, 除非另有规定)

型号	标识代 码 Marking	击穿电压		测试电流	变位电压	最大反向漏电 流 @ V_{WM}	最大峰值脉冲 浪涌电流	最大箝位电压 @ 1 ppm
		$V_{(BR)}$ (注释 1)		I_T	V_{WM}	I_D	I_{ppm}	V_C (注释 2)
		V		mA	V	μA	A	V
		最小	最大					
SMF5.0CA	FE	6.4	7	10	5	400	21.7	9.2
SMF6.0CA	FG	6.67	7.37	10	6	400	19.4	10.3
SMF6.5CA	FK	7.22	7.98	10	6.5	250	17.9	11.2
SMF7.0CA	FM	7.78	8.6	10	7	100	16.7	12
SMF7.5CA	FP	8.33	9.21	1	7.5	50	15.5	12.9
SMF8.0CA	FR	8.89	9.83	1	8	25	14.7	13.6
SMF8.5CA	FT	9.44	10.4	1	8.5	10	13.9	14.4
SMF9.0CA	FV	10	11.1	1	9	5	13.0	15.4
SMF10CA	FX	11.1	12.3	1	10	2.5	11.8	17
SMF11CA	FZ	12.2	13.5	1	11	2.5	11.0	18.2
SMF12CA	HE	13.3	14.7	1	12	2.5	10.1	19.9
SMF13CA	HG	14.4	15.9	1	13	1	9.3	21.5
SMF14CA	HK	15.6	17.2	1	14	1	8.6	23.2
SMF15CA	HM	16.7	18.5	1	15	1	8.2	24.4
SMF16CA	HP	17.8	19.7	1	16	1	7.7	26
SMF17CA	HR	18.9	20.9	1	17	1	7.2	27.6
SMF18CA	HT	20	22.1	1	18	1	6.8	29.2
SMF19CA	HB	21.1	23.3	1	19	1	6.54	30.6
SMF20CA	HV	22.2	24.5	1	20	1	6.2	32.4
SMF22CA	HX	24.4	26.9	1	22	1	5.6	35.5
SMF24CA	HZ	26.7	29.5	1	24	1	5.1	38.9
SMF26CA	JE	28.9	31.9	1	26	1	4.8	42.1
SMF28CA	JG	31.1	34.4	1	28	1	4.4	45.4
SMF30CA	JK	33.3	36.8	1	30	1	4.1	48.4
SMF33CA	JM	36.7	40.6	1	33	1	3.8	53.3
SMF36CA	JP	40	44.2	1	36	1	3.4	58.1
SMF40CA	JR	44.4	49.1	1	40	1	3.1	64.5
SMF43CA	JT	47.8	52.8	1	43	1	2.9	69.4
SMF45CA	JV	50	55.3	1	45	1	2.8	72.7
SMF48CA	JX	53.3	58.9	1	48	1	2.6	77.4
SMF51CA	JZ	56.7	62.7	1	51	1	2.4	82.4
SMF54CA	XE	60	66.3	1	54	1	2.3	87.1

电特性 (测量环境温度为 25°C, 除非另有规定)

型号	标识代码 Marking	击穿电压		测试电流	变位电压	最大反向漏电流 @ V_{WM}	最大峰值脉冲浪涌电流	最大箝位电压 @ 1 ppm
		$V_{(BR)}$ (注释 1)						
		V		mA	V	I_D μA	A	V_C (注释 2)
最小	最大							
SMF58CA	XG	64.4	71.2	1	58	1	2.1	93.6
SMF60CA	XK	66.7	73.7	1	60	1	1.8	96.8
SMF64CA	XM	71.1	78.6	1	64	1	1.7	103
SMF70CA	XP	77.8	86	1	70	1	1.5	113
SMF75CA	XR	83.3	92.1	1	75	1	1.4	121
SMF78CA	XT	86.7	95.8	1	78	1	1.4	126
SMF80CA	XB	88.8	97.6	1	80	1	1.55	129
SMF85CA	XV	94.4	104	1	85	1	1.3	137
SMF90CA	XX	100	111	1	90	1	1.2	146
SMF100CA	XZ	111	123	1	100	1	1.1	162
SMF110CA	TE	122	135	1	110	1	1.0	177
SMF120CA	TG	133	147	1	120	1	0.9	193
SMF130CA	TK	144	159	1	130	1	0.8	209
SMF140CA	TB	155	171	1	140	1	0.89	224
SMF150CA	TM	167	185	1	150	1	0.7	243
SMF160CA	TP	178	197	1	160	1	0.7	259
SMF170CA	TR	189	209	1	170	1	0.6	275
SMF180CA	TT	200	220	1	180	1	0.68	292
SMF190CA	TV	211	232	1	190	1	0.65	308

NOTES:

1. V_{BR} measured at pulse test current I_T at ambient temperature of 25°C.
2. Surge current waveform per Figure 2 .

电特性 (测量环境温度为 25℃, 除非另有规定)

型 号	标识 代码 Marki ng	击穿电压		测试电流	变位电压	最大反向漏电 流 @ V_{WM}	最大峰值脉冲 浪涌电流	最大箝位电压 @ 1 ppm
		$V_{(BR)}$ (注释 1)		I_T	V_{WM}	I_D	I_{ppm}	V_C (注释 2)
		V		mA	V	μA	A	V
		最小	最大					
SMF5.0A	KE	6.4	7	10	5	400	21.7	9.2
SMF6.0A	KG	6.67	7.37	10	6	400	19.4	10.3
SMF6.5A	KK	7.22	7.98	10	6.5	250	17.9	11.2
SMF7.0A	KM	7.78	8.6	10	7	100	16.7	12
SMF7.5A	KP	8.33	9.21	1	7.5	50	15.5	12.9
SMF8.0A	KR	8.89	9.83	1	8	25	14.7	13.6
SMF8.5A	KT	9.44	10.4	1	8.5	10	13.9	14.4
SMF9.0A	KV	10	11.1	1	9	5	13.0	15.4
SMF10A	KX	11.1	12.3	1	10	2.5	11.8	17
SMF11A	KZ	12.2	13.5	1	11	2.5	11.0	18.2
SMF12A	LE	13.3	14.7	1	12	2.5	10.1	19.9
SMF13A	LG	14.4	15.9	1	13	1	9.3	21.5
SMF14A	LK	15.6	17.2	1	14	1	8.6	23.2
SMF15A	LM	16.7	18.5	1	15	1	8.2	24.4
SMF16A	LP	17.8	19.7	1	16	1	7.7	26
SMF17A	LR	18.9	20.9	1	17	1	7.2	27.6
SMF18A	LT	20	22.1	1	18	1	6.8	29.2
SMF19A	LB	21.1	23.3	1	19	1	6.54	30.6
SMF20A	LV	22.2	24.5	1	20	1	6.2	32.4
SMF22A	LX	24.4	26.9	1	22	1	5.6	35.5
SMF24A	LZ	26.7	29.5	1	24	1	5.1	38.9
SMF26A	ME	28.9	31.9	1	26	1	4.8	42.1
SMF28A	MG	31.1	34.4	1	28	1	4.4	45.4
SMF30A	MK	33.3	36.8	1	30	1	4.1	48.4
SMF33A	MM	36.7	40.6	1	33	1	3.8	53.3
SMF36A	MP	40	44.2	1	36	1	3.4	58.1
SMF40A	MR	44.4	49.1	1	40	1	3.1	64.5
SMF43A	MT	47.8	52.8	1	43	1	2.9	69.4
SMF45A	MV	50	55.3	1	45	1	2.8	72.7
SMF48A	MX	53.3	58.9	1	48	1	2.6	77.4
SMF51A	MZ	56.7	62.7	1	51	1	2.4	82.4
SMF54A	NE	60	66.3	1	54	1	2.3	87.1

电特性 (测量环境温度为 25°C，除非另有规定)

型 号	标识代 码 Marking	击穿电压		测试电流	变位电压	最大反向漏 电流 @ V_{WM}	最大峰值脉冲 浪涌电流	最大箝位电压 @ I_{ppm}
		$V_{(BR)}$ (注释 1)		I_T	V_{WM}	I_D	I_{ppm}	V_C (注释 2)
		V		mA	V	μA	A	V
最小	最大							
SMF58A	NG	64.4	71.2	1	58	1	2.1	93.6
SMF60A	NK	66.7	73.7	1	60	1	1.8	96.8
SMF64A	NM	71.1	78.6	1	64	1	1.7	103
SMF70A	NP	77.8	86	1	70	1	1.5	113
SMF75A	NR	83.3	92.1	1	75	1	1.4	121
SMF78A	NT	86.7	95.8	1	78	1	1.4	126
SMF80A	NB	88.8	97.6	1	80	1	1.55	129
SMF85A	NV	94.4	104	1	85	1	1.3	137
SMF90A	NX	100	111	1	90	1	1.2	146
SMF100A	NZ	111	123	1	100	1	1.1	162
SMF110A	PE	122	135	1	110	1	1.0	177
SMF120A	PG	133	147	1	120	1	0.9	193
SMF130A	PK	144	159	1	130	1	0.8	209
SMF140A	PB	155	171	1	140	1	0.89	224
SMF150A	PM	167	185	1	150	1	0.7	243
SMF160A	PP	178	197	1	160	1	0.7	259
SMF170A	PR	189	209	1	170	1	0.6	275
SMF180A	PT	200	220	1	180	1	0.68	292
SMF190A	PV	211	232	1	190	1	0.65	308

NOTES:

1. V_{BR} measured at pulse test current I_T at ambient temperature of 25°C.
2. Surge current waveform per Figure 2 .

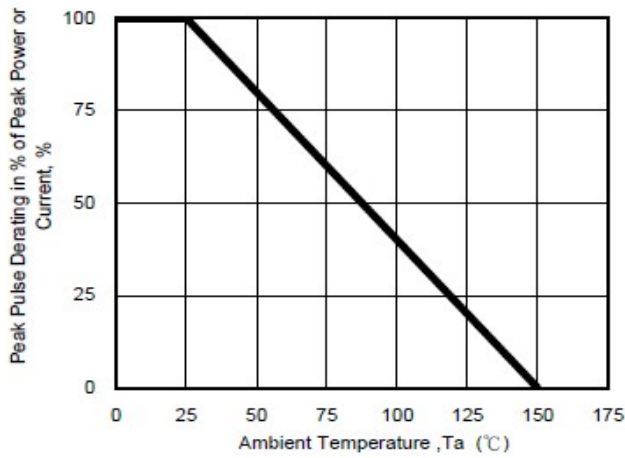


Fig. 1 - Pulse Derating Curve

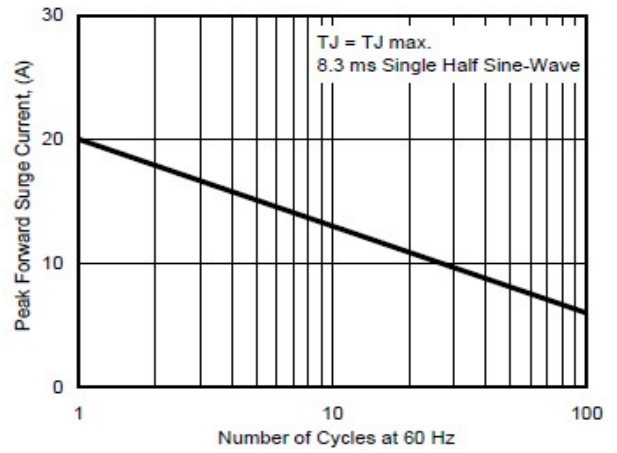


Fig. 2 - Maximum Non-Repetitive Surge Current

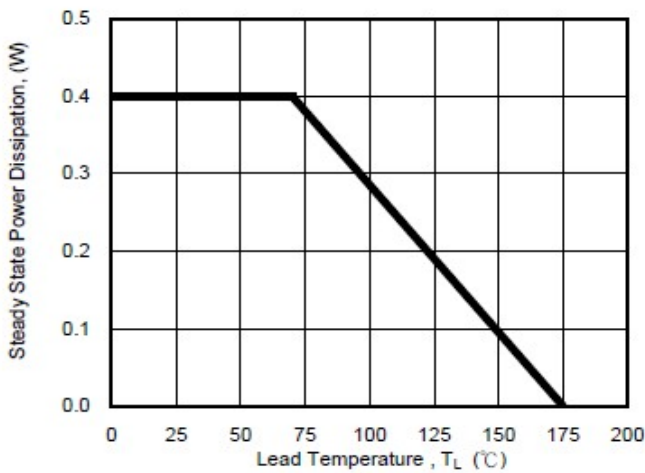


Fig. 3 - Steady State Power Derating Curve

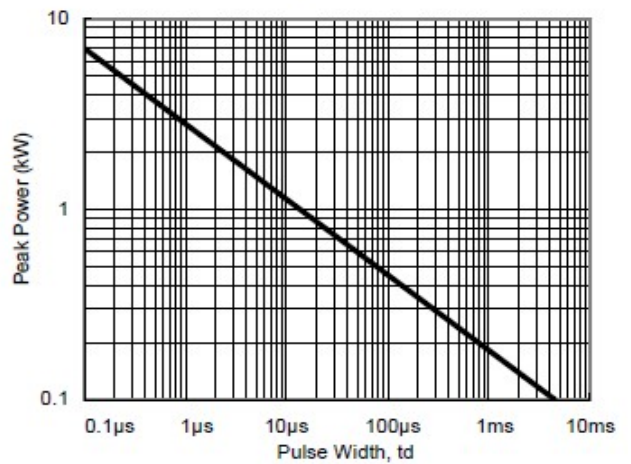


Fig. 4 - Peak Pulse Power Rating Curve

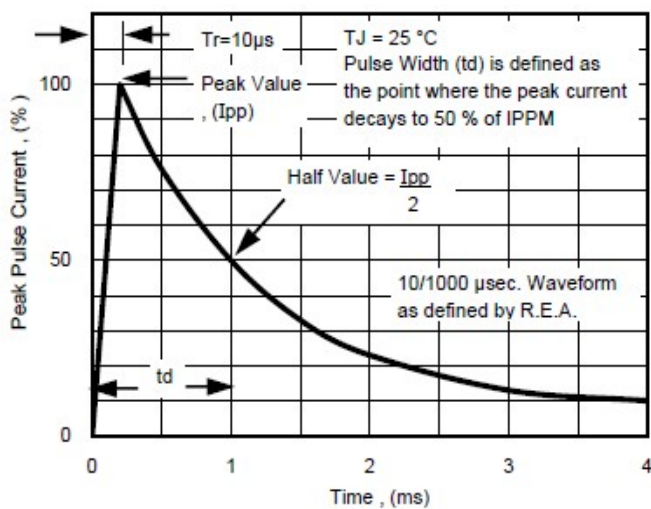


Fig. 5 - Pulse Waveform