

SMC TVS 瞬态电压抑制二极管

■Features 特点

Excellent Clamping Capability 优秀的钳位能力

Glass passivated junction 玻璃钝化工艺

Fast Response Time 快速反应时间

Built-in Strain Relief 内应力释放



■Applications 应用

I/O interface 输入/输出接口

AC/DC power supply 电源转换

Low frequency signal transmission line (RS232, RS485, etc.) 低频信号传输线

■Internal Schematic Diagram 内部结构



■Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Peak Power Dissipation 峰值功率	P_{PK}	1500	W
Reverse Stand-off Work Voltage 反向工作电压	V_{RWM}	5.0~440	V
Peak Pulse Current 峰值脉冲电流	I_{PP}	163~2.1	A
Peak Forward Surge Current 峰值正向浪涌电流(UNI)	I_{FSM}	200	A
Forward Voltage@ $I_F=35A$ 正向电压(UNI)	V_F	3.5	V
Power Dissipation 耗散功率	P_D	6.5	W
Junction/Storage Temperature 结温/储存温度	T_J, T_{stg}	-55~150	°C

■Electrical Characteristics 电特性

($T_A=25^{\circ}C$ unless otherwise noted 如无特殊说明, 温度为 $25^{\circ}C$)

Type Number	V _{RWM} (V)	V _{BR} (V)@I _T		I _T (mA)	V _C (V) @I _{PP}	I _{PP} (A)	I _R (μA) @V _{RWM}	Marking	
		Min.	Max.					A(UNI)	CA(BI)
SMCJ5.0(C)A	5.0	6.40	7.25	10	9.2	163.0	1000	GDE	BDE
SMCJ6.0(C)A	6.0	6.67	7.67	10	10.3	145.6	1000	GDG	BDG
SMCJ6.5(C)A	6.5	7.22	8.30	10	11.2	133.9	500	GDK	BDK
SMCJ7.0(C)A	7.0	7.78	8.95	10	12.0	125.0	200	GDM	BDM
SMCJ7.5(C)A	7.5	8.33	9.58	1	12.9	116.3	100	GDP	BDP
SMCJ8.0(C)A	8.0	8.89	10.23	1	13.6	110.3	50	GDR	BDR
SMCJ8.5(C)A	8.5	9.44	10.82	1	14.4	104.2	20	GDT	BDT
SMCJ9.0(C)A	9.0	10.0	11.50	1	15.4	97.4	10	GDV	BDV
SMCJ10(C)A	10	11.1	12.80	1	17.0	88.2	5	GDX	BDX
SMCJ11(C)A	11	12.2	14.00	1	18.2	82.4	5	GDZ	BDZ
SMCJ12(C)A	12	13.3	15.30	1	19.9	75.3	5	GEE	BEE
SMCJ13(C)A	13	14.4	15.60	1	21.5	69.7	5	GEG	BEG
SMCJ14(C)A	14	15.6	17.90	1	23.2	64.7	5	GEK	BEK
SMCJ15(C)A	15	16.7	19.20	1	24.4	61.5	5	GEM	BEM
SMCJ16(C)A	16	17.8	20.50	1	26.0	57.7	5	GEP	BEP
SMCJ17(C)A	17	18.9	21.70	1	27.6	53.3	5	GER	BER
SMCJ18(C)A	18	20.0	23.30	1	29.2	51.4	5	GET	BET
SMCJ20(C)A	20	22.2	25.50	1	32.4	46.3	5	GEV	BEV
SMCJ22(C)A	22	24.4	28.00	1	35.5	42.2	5	GEX	BEX
SMCJ24(C)A	24	26.7	30.70	1	38.9	38.6	5	GEZ	BEZ
SMCJ26(C)A	26	28.9	33.20	1	42.1	35.6	5	GFE	BFE
SMCJ28(C)A	28	31.1	35.80	1	45.4	33.0	5	GFG	BFG
SMCJ30(C)A	30	33.3	38.30	1	48.4	31.0	5	GFK	BFK
SMCJ33(C)A	33	36.7	42.20	1	53.3	28.1	5	GFM	BFM
SMCJ36(C)A	36	40.0	46.00	1	58.1	25.8	5	GFP	BFP
SMCJ40(C)A	40	44.4	51.10	1	64.5	23.2	5	GFR	BFR
SMCJ43(C)A	43	47.8	54.90	1	69.4	21.6	5	GFT	BFT
SMCJ45(C)A	45	50.0	57.50	1	72.7	20.6	5	GFV	BFV
SMCJ48(C)A	48	53.3	61.30	1	77.4	19.4	5	GFX	BFX
SMCJ51(C)A	51	56.7	65.20	1	82.4	18.2	5	GFZ	BFZ
SMCJ54(C)A	54	60.0	69.00	1	87.1	17.2	5	GGE	BGE
SMCJ58(C)A	58	64.4	74.10	1	93.6	16.0	5	GGG	BGG
SMCJ60(C)A	60	66.7	76.70	1	96.8	15.5	5	GGK	BGK
SMCJ64(C)A	64	71.1	81.80	1	103	14.6	5	GGM	BGM
SMCJ70(C)A	70	77.8	89.50	1	113	13.3	5	GGP	BGP
SMCJ75(C)A	75	83.3	95.80	1	121	12.4	5	GGR	BGR
SMCJ78(C)A	78	86.7	99.70	1	126	11.4	5	GGT	BGT
SMCJ85(C)A	85	94.4	108.2	1	137	10.4	5	GGV	BGV
SMCJ90(C)A	90	100	115.5	1	146	10.3	5	GGX	BGX
SMCJ100(C)A	100	111	128.0	1	162	9.3	5	GGZ	BGZ
SMCJ110(C)A	110	122	140.5	1	177	8.4	5	GHE	BHE
SMCJ120(C)A	120	133	153.0	1	193	7.9	5	GHG	BHG
SMCJ130(C)A	130	144	165.5	1	209	7.2	5	GHK	BHK
SMCJ150(C)A	150	167	192.5	1	243	6.2	5	GHM	BHM
SMCJ160(C)A	160	178	205.0	1	259	5.8	5	GHP	BHP
SMCJ170(C)A	170	189	217.5	1	275	5.5	5	GHR	BHR
SMCJ188(C)A	188	209	231.0	1	328	4.6	5	GHT	BHT
SMCJ200(C)A	200	224	247.0	1	332	4.6	5	GHV	BHV
SMCJ220(C)A	220	246	272.0	1	352	3.7	5	GHX	BHX
SMCJ250(C)A	250	279	305.0	1	405	3.1	5	GHZ	BHZ
SMCJ300(C)A	300	335	371.0	1	486	2.6	5	GJE	BJE
SMCJ350(C)A	350	391	432.0	1	567	2.6	5	GJG	BJG
SMCJ400(C)A	400	447	494.0	1	648	2.3	5	GJK	BJK
SMCJ440(C)A	440	492	543.0	1	713	2.1	5	GJM	BJM

■ Typical Characteristic Curve 典型特性曲线

Figure 1. Peak Pulse Power Rating Curve

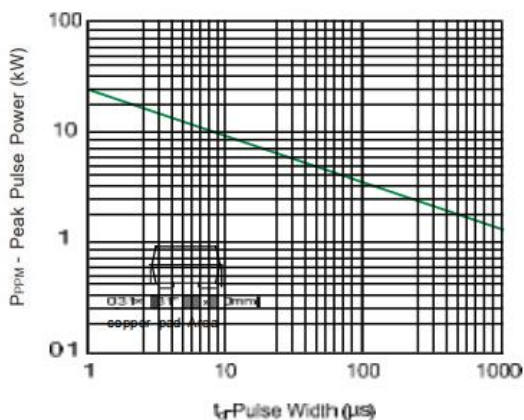


Figure 2. Pulse Derating Curve

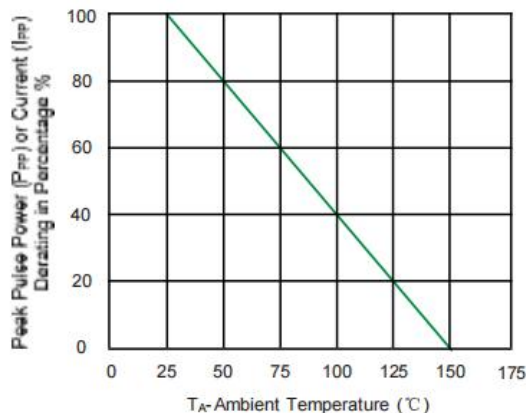


Figure 3. Pulse Waveform

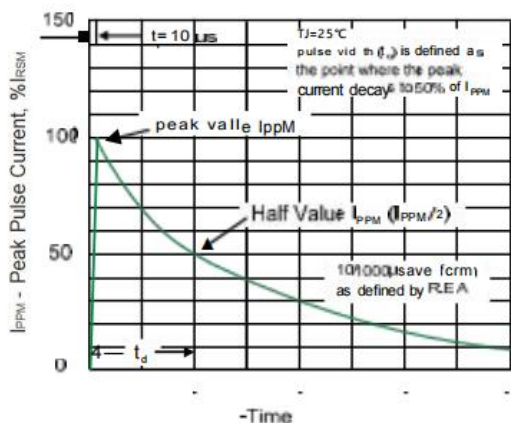


Figure 4. Typical Junction Capacitance

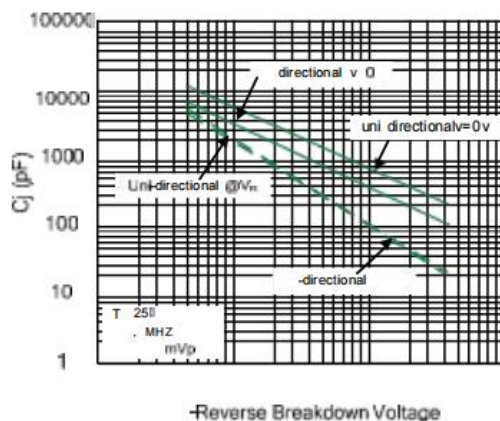


Figure 5. Steady State Power Dissipation Derating Curve

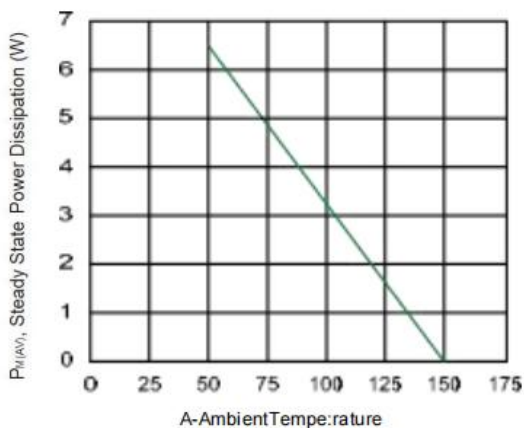
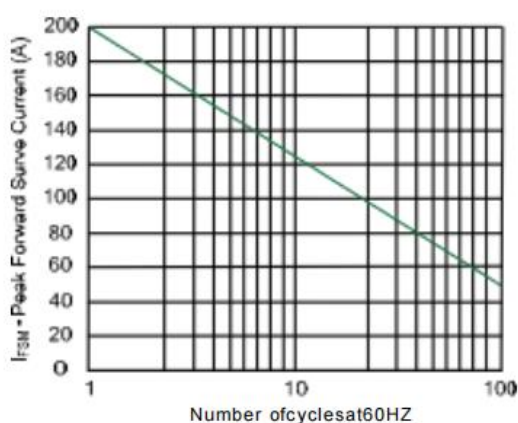
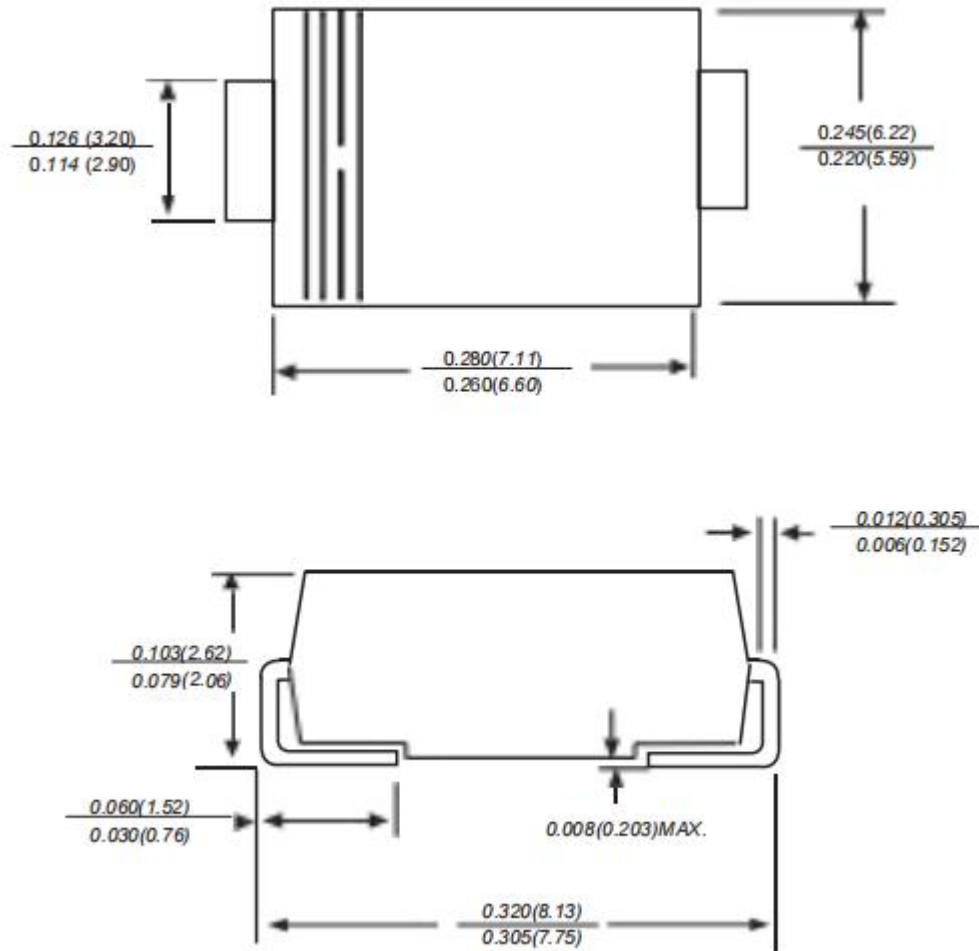


Figure 6. Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



■Dimension 外形封装尺寸



Dimensions in inches and (millimeters)