

SMC TVS 瞬态电压抑制二极管

■ Features 特点

Excellent Clamping Capability 优秀的钳位能力

Fast Response Time 快速反应时间

Built-in Strain Relief 内应力释放

■ Applications 应用

Clamping Voltage 钳制电压

HF **RoHS**



■ 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
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	75	°C/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-6AF	5.0	6.40	7.25	10	9.2	163.0	1000	GDE	BDE
SMCJ6.0(C)A-6AF	6.0	6.67	7.67	10	10.3	145.6	1000	GDG	BDG
SMCJ6.5(C)A-6AF	6.5	7.22	8.30	10	11.2	133.9	500	GDK	BDK
SMCJ7.0(C)A-6AF	7.0	7.78	8.95	10	12.0	125.0	200	GDM	BDM
SMCJ7.5(C)A-6AF	7.5	8.33	9.58	1	12.9	116.3	100	GDP	BDP
SMCJ8.0(C)A-6AF	8.0	8.89	10.23	1	13.6	110.3	50	GDR	BDR
SMCJ8.5(C)A-6AF	8.5	9.44	10.82	1	14.4	104.2	20	GDT	BDT
SMCJ9.0(C)A-6AF	9.0	10.0	11.50	1	15.4	97.4	10	GDV	BDV
SMCJ10(C)A-6AF	10	11.1	12.80	1	17.0	88.2	5	GDX	BDX
SMCJ11(C)A-6AF	11	12.2	14.00	1	18.2	82.4	5	GDZ	BDZ
SMCJ12(C)A-6AF	12	13.3	15.30	1	19.9	75.3	5	GEE	BEE
SMCJ13(C)A-6AF	13	14.4	15.60	1	21.5	69.7	5	GEG	BEG
SMCJ14(C)A-6AF	14	15.6	17.90	1	23.2	64.7	5	GEK	BEK
SMCJ15(C)A-6AF	15	16.7	19.20	1	24.4	61.5	5	GEM	BEM
SMCJ16(C)A-6AF	16	17.8	20.50	1	26.0	57.7	5	GEP	BEP
SMCJ17(C)A-6AF	17	18.9	21.70	1	27.6	53.3	5	GER	BER
SMCJ18(C)A-6AF	18	20.0	23.30	1	29.2	51.4	5	GET	BET
SMCJ20(C)A-6AF	20	22.2	25.50	1	32.4	46.3	5	GEV	BEV
SMCJ22(C)A-6AF	22	24.4	28.00	1	35.5	42.2	5	GEX	BEX
SMCJ24(C)A-6AF	24	26.7	30.70	1	38.9	38.6	5	GEZ	BEZ
SMCJ26(C)A-6AF	26	28.9	33.20	1	42.1	35.6	5	GFE	BFE
SMCJ28(C)A-6AF	28	31.1	35.80	1	45.4	33.0	5	GFG	BFG
SMCJ30(C)A-6AF	30	33.3	38.30	1	48.4	31.0	5	GFK	BFK
SMCJ33(C)A-6AF	33	36.7	42.20	1	53.3	28.1	5	GFM	BFM
SMCJ36(C)A-6AF	36	40.0	46.00	1	58.1	25.8	5	GFP	BFP
SMCJ40(C)A-6AF	40	44.4	51.10	1	64.5	23.2	5	GFR	BFR
SMCJ43(C)A-6AF	43	47.8	54.90	1	69.4	21.6	5	GFT	BFT
SMCJ45(C)A-6AF	45	50.0	57.50	1	72.7	20.6	5	GFV	BFV
SMCJ48(C)A-6AF	48	53.3	61.30	1	77.4	19.4	5	GFX	BFX
SMCJ51(C)A-6AF	51	56.7	65.20	1	82.4	18.2	5	GFZ	BFZ
SMCJ54(C)A-6AF	54	60.0	69.00	1	87.1	17.2	5	GGE	BGE
SMCJ58(C)A-6AF	58	64.4	74.10	1	93.6	16.0	5	GGG	BGG
SMCJ60(C)A-6AF	60	66.7	76.70	1	96.8	15.5	5	GGK	BGK
SMCJ64(C)A-6AF	64	71.1	81.80	1	103	14.6	5	GGM	BGM
SMCJ70(C)A-6AF	70	77.8	89.50	1	113	13.3	5	GGP	BGP
SMCJ75(C)A-6AF	75	83.3	95.80	1	121	12.4	5	GGR	BGR
SMCJ78(C)A-6AF	78	86.7	99.70	1	126	11.4	5	GGT	BGT
SMCJ85(C)A-6AF	85	94.4	108.2	1	137	10.4	5	GGV	BGV
SMCJ90(C)A-6AF	90	100	115.5	1	146	10.3	5	GGX	BGX
SMCJ100(C)A-6AF	100	111	128.0	1	162	9.3	5	GGZ	BGZ
SMCJ110(C)A-6AF	110	122	140.5	1	177	8.4	5	GHE	BHE
SMCJ120(C)A-6AF	120	133	153.0	1	193	7.9	5	GHG	BHG
SMCJ130(C)A-6AF	130	144	165.5	1	209	7.2	5	GHK	BHK
SMCJ150(C)A-6AF	150	167	192.5	1	243	6.2	5	GHM	BHM
SMCJ160(C)A-6AF	160	178	205.0	1	259	5.8	5	GHP	BHP
SMCJ170(C)A-6AF	170	189	217.5	1	275	5.5	5	GHR	BHR
SMCJ188(C)A-6AF	188	209	231.0	1	328	4.6	5	GHT	BHT
SMCJ200(C)A-6AF	200	224	247.0	1	332	4.6	5	GHV	BHV
SMCJ220(C)A-6AF	220	246	272.0	1	352	3.7	5	GHX	BHX
SMCJ250(C)A-6AF	250	279	305.0	1	405	3.1	5	GHZ	BHZ
SMCJ300(C)A-6AF	300	335	371.0	1	486	2.6	5	GJE	BJE
SMCJ350(C)A-6AF	350	391	432.0	1	567	2.6	5	GJG	BJG
SMCJ400(C)A-6AF	400	447	494.0	1	648	2.3	5	GJK	BJK
SMCJ440(C)A-6AF	440	492	543.0	1	713	2.1	5	GJM	BJM

■ Typical Characteristic Curve 典型特性曲线

FIG.1-PEAK PULSE POWER DERATING CURVE

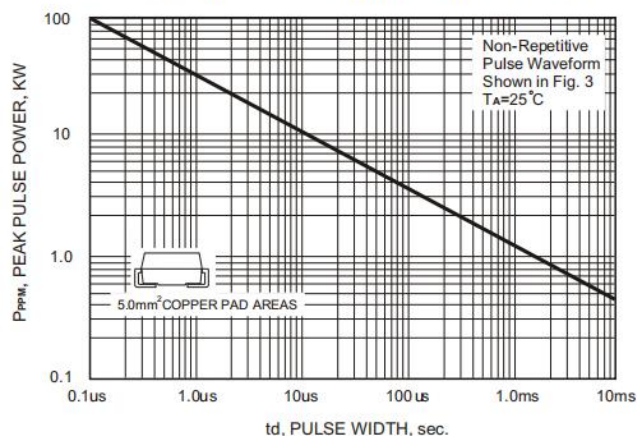


FIG.2-PULSE DERATING CURVE

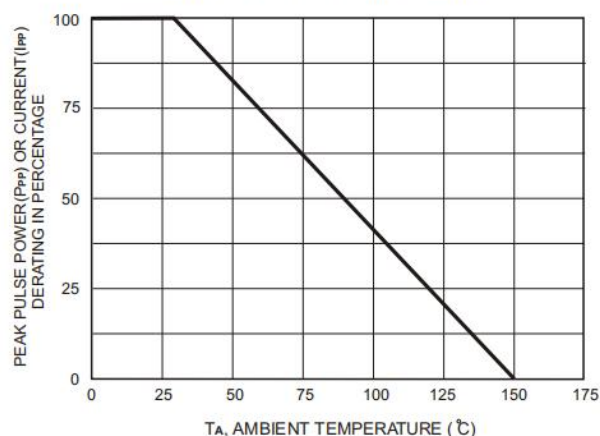


FIG.3-PULSE WAVE FORM

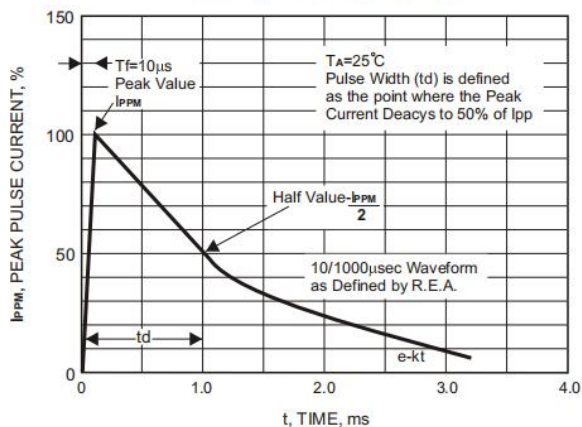


FIG.4-TYPICAL JUNCTION CAPACITANCE

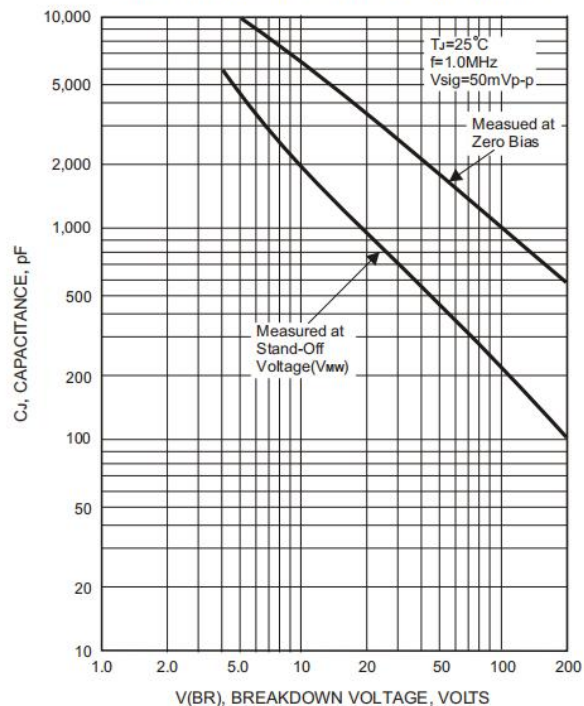
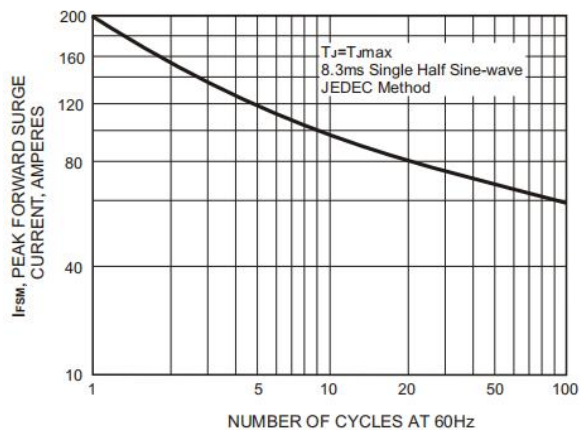
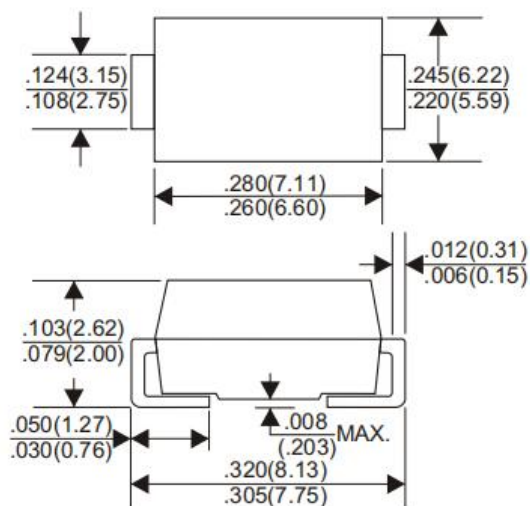


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



■Dimension 外形封装尺寸

DO-214AB(SMC)



Dimensions in inches and (millimeters)