

SMA 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

■ Internal Schematic Diagram 内部结构



HF RoHS



■ 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}	400	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}	43.5~0.6	A
Peak Forward Surge Current 峰值正向浪涌电流(UNI)	I_{FSM}	40	A
Forward Voltage@ $I_F=25A$ 正向电压(UNI)	V_F	3.5	V
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	30	$^{\circ}C/W$
Junction/Storage Temperature 结温/储存温度	T_J, T_{stg}	-55~150	$^{\circ}C$

■ 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 _{RW}	Marking	
		Min.	Max.					A(UNI)	CA(BI)
SMAJ5.0(C)A-AAF	5.0	6.40	7.25	10	9.2	43.5	800	AE	WE
SMAJ6.0(C)A-AAF	6.0	6.67	7.67	10	10.3	38.8	800	AG	WG
SMAJ6.5(C)A-AAF	6.5	7.22	8.30	10	11.2	35.7	500	AK	WK
SMAJ7.0(C)A-AAF	7.0	7.78	8.95	10	12.0	33.3	200	AM	WM
SMAJ7.5(C)A-AAF	7.5	8.33	9.58	1	12.9	31.0	100	AP	WP
SMAJ8.0(C)A-AAF	8.0	8.89	10.23	1	13.6	29.4	50	AR	WR
SMAJ8.5(C)A-AAF	8.5	9.44	10.82	1	14.4	27.7	10	AT	WT
SMAJ9.0(C)A-AAF	9.0	10.0	11.50	1	15.4	26.0	5	AV	WV
SMAJ10(C)A-AAF	10	11.1	12.80	1	17.0	23.5	5	AX	WX
SMAJ11(C)A-AAF	11	12.2	14.00	1	18.2	22.0	5	AZ	WZ
SMAJ12(C)A-AAF	12	13.3	15.30	1	19.9	20.1	5	BE	XE
SMAJ13(C)A-AAF	13	14.4	15.60	1	21.5	18.6	5	BG	XG
SMAJ14(C)A-AAF	14	15.6	17.90	1	23.2	17.2	5	BK	XK
SMAJ15(C)A-AAF	15	16.7	19.20	1	24.4	16.4	5	BM	XM
SMAJ16(C)A-AAF	16	17.8	20.50	1	26.0	15.3	5	BP	XP
SMAJ17(C)A-AAF	17	18.9	21.70	1	27.6	14.5	5	BR	XR
SMAJ18(C)A-AAF	18	20.0	23.30	1	29.2	13.7	5	BT	XT
SMAJ20(C)A-AAF	20	22.2	25.50	1	32.4	12.3	5	BV	XV
SMAJ22(C)A-AAF	22	24.4	28.00	1	35.5	11.2	5	BX	XX
SMAJ24(C)A-AAF	24	26.7	30.70	1	38.9	10.3	5	BZ	XZ
SMAJ26(C)A-AAF	26	28.9	33.20	1	42.1	9.5	5	CE	YE
SMAJ28(C)A-AAF	28	31.1	35.80	1	45.4	8.8	5	CG	YG
SMAJ30(C)A-AAF	30	33.3	38.30	1	48.4	8.3	5	CK	YK
SMAJ33(C)A-AAF	33	36.7	42.20	1	53.3	7.5	5	CM	YM
SMAJ36(C)A-AAF	36	40.0	46.00	1	58.1	6.9	5	CP	YP
SMAJ40(C)A-AAF	40	44.4	51.10	1	64.5	6.2	5	CR	YR
SMAJ43(C)A-AAF	43	47.8	54.90	1	69.4	5.7	5	CT	YT
SMAJ45(C)A-AAF	45	50.0	57.50	1	72.7	5.5	5	CV	YV
SMAJ48(C)A-AAF	48	53.3	61.30	1	77.4	5.2	5	CX	YX
SMAJ51(C)A-AAF	51	56.7	65.20	1	82.4	4.9	5	CZ	YZ
SMAJ54(C)A-AAF	54	60.0	69.00	1	87.1	4.6	5	RE	ZE
SMAJ58(C)A-AAF	58	64.4	74.10	1	93.6	4.3	5	RG	ZG
SMAJ60(C)A-AAF	60	66.7	76.70	1	96.8	4.1	5	RK	ZK
SMAJ64(C)A-AAF	64	71.1	81.80	1	103	3.9	5	RM	ZM
SMAJ70(C)A-AAF	70	77.8	89.50	1	113	3.5	5	RP	ZP
SMAJ75(C)A-AAF	75	83.3	95.80	1	121	3.3	5	RR	ZR
SMAJ78(C)A-AAF	78	86.7	99.70	1	126	3.2	5	RT	ZT
SMAJ85(C)A-AAF	85	94.4	108.2	1	137	2.2	5	RV	ZV
SMAJ90(C)A-AAF	90	100	115.5	1	146	2.1	5	RX	ZX
SMAJ100(C)A-AAF	100	111	128.0	1	162	1.9	5	RZ	ZZ
SMAJ110(C)A-AAF	110	122	140.5	1	177	1.7	5	SE	VE
SMAJ120(C)A-AAF	120	133	153.0	1	193	1.6	5	SG	VG
SMAJ130(C)A-AAF	130	144	165.5	1	209	1.4	5	SK	VK
SMAJ150(C)A-AAF	150	167	192.5	1	243	1.2	5	SM	VM
SMAJ160(C)A-AAF	160	178	205.0	1	259	1.2	5	SP	VP
SMAJ170(C)A-AAF	170	189	217.5	1	275	1.09	5	SR	VR
SMAJ180(C)A-AAF	180	201	222.0	1	328	0.91	5	ST	VT
SMAJ200(C)A-AAF	200	224	247.0	1	332	0.89	5	SV	VV
SMAJ220(C)A-AAF	220	246	272.0	1	352	0.8	5	SX	VX
SMAJ250(C)A-AAF	250	279	309.0	1	405	0.75	5	SZ	VZ
SMAJ300(C)A-AAF	300	335	371.0	1	486	0.7	5	TE	UE
SMAJ350(C)A-AAF	350	391	432.0	1	567	0.7	5	TG	UG
SMAJ400(C)A-AAF	400	447	494.0	1	648	0.6	5	TK	UK
SMAJ440(C)A-AAF	440	492	543.0	1	713	0.6	5	TM	UM

■ Typical Characteristic Curve 典型特性曲线

FIG.1-PEAK PULSE POWER DERATING CURVE

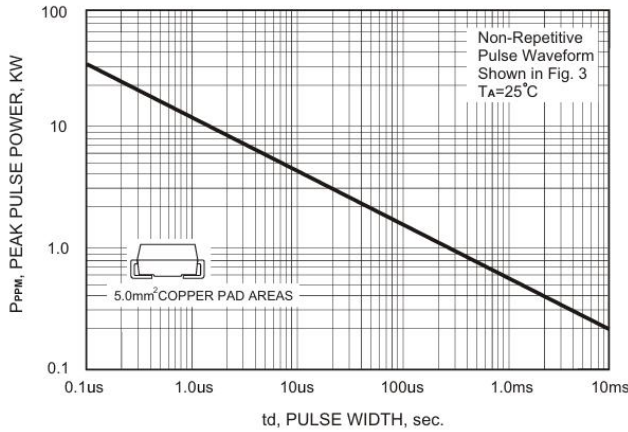


FIG.2-PULSE DERATING CURVE

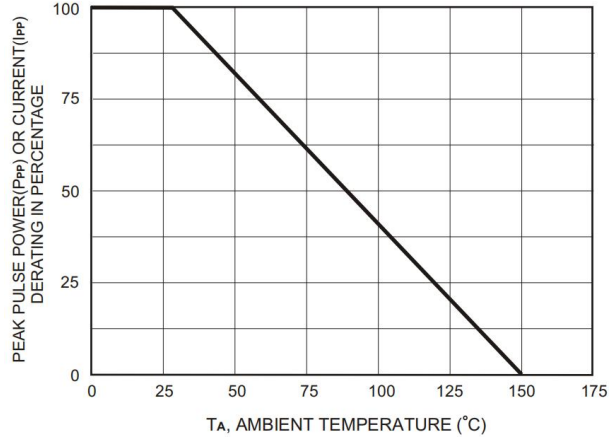


FIG.3-PULSE WAVE FORM

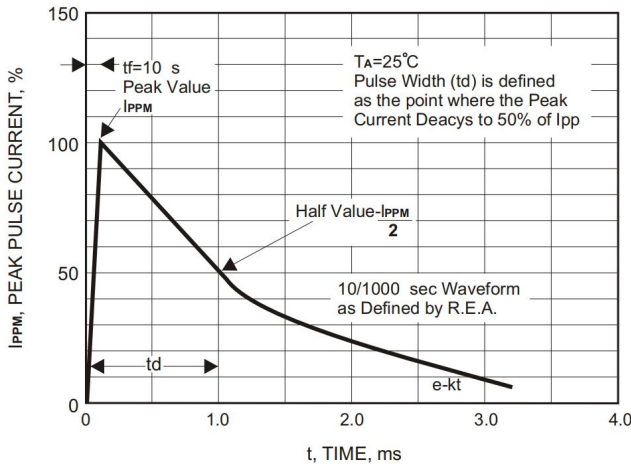


FIG.4-TYPICAL JUNCTION CAPACITANCE

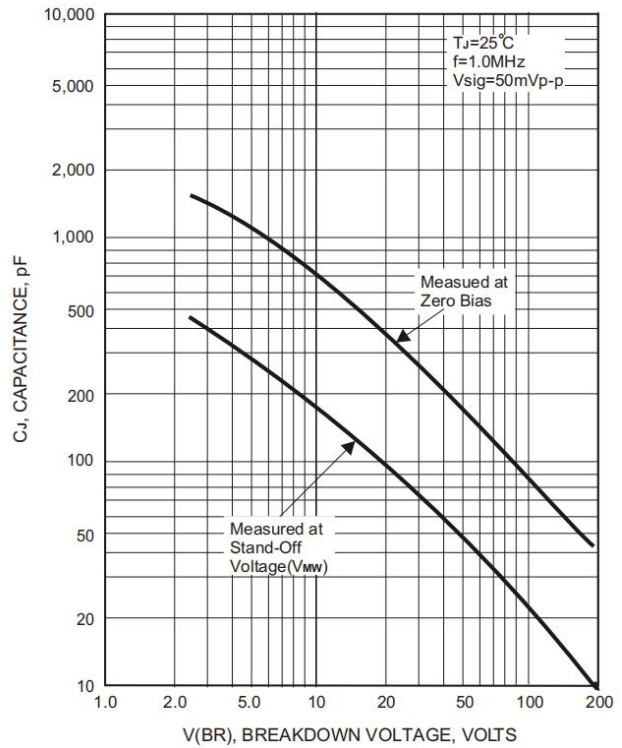
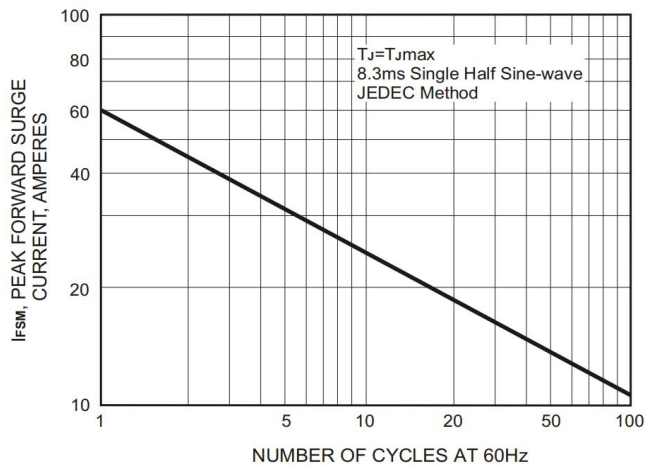
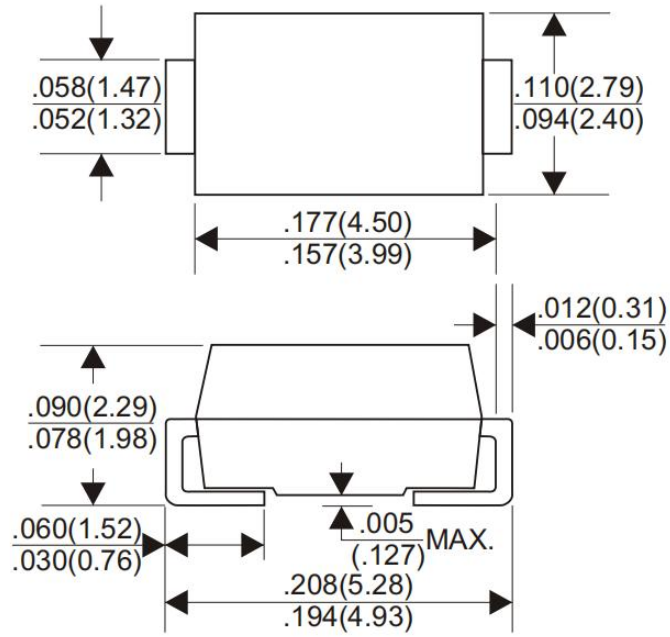


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



■Dimension 外形封装尺寸

DO-214AC(SMA)



Dimensions in inches and (millimeters)