瞬态电压抑制二极管: SMDJ 系列

3000 W 表面贴装型

■ 特性

1. 适合表面贴装型应用
2. 符合RoHS与无卤要求
3. 可靠且低价的塑料成型技术
4. 玻璃钝化结
5. 可提供单向与双向产品
6. 响应时间快速
7. 优异的限压抑制电压能力

■ 用途

1. 通信设备
2. 计算机
3. 工业设备
4. 消费电子设备

■ 机械数据

1. 封装型式: DO-214AB (SMC), 封装塑料符合防火等级UL94-V0
2. 镀锡引脚可焊性符合 MIL-STD-750, Method 2026.
3. 极性:有带状标示为阴极 (注:没有极性符号为双极性产品)

■ 编码规则

S	M	D	J	5	.	0	C	A
1	2	3	4	5	6	7	8	9

产品类型	
SMDJ	兴勤 瞬态电压抑制二极管 SMDJ 系列

反向截止电压(V_{RWM})	
5.0	5V
70	70V
120	120V

类型代码	
Blank	单向 10%反向击穿电压 V_{BR} 公差
C	双向 10%反向击穿电压 V_{BR} 公差
A	单向, 5%反向击穿电压 V_{BR} 公差
CA	双向 5%反向击穿电压 V_{BR} 公差

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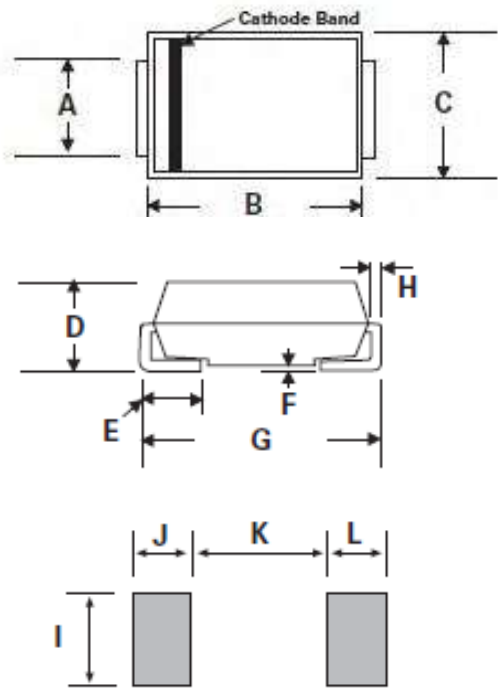
■ 结构与尺寸

SMC/DO-214AB



代号	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.90	3.20	0.114	0.126
B	6.60	7.11	0.260	0.280
C	5.59	6.22	0.220	0.245
D	2.06	2.62	0.079	0.103
E	0.76	1.52	0.030	0.060
F	-	0.203	-	0.008
G	7.75	8.13	0.305	0.320
H	0.152	0.305	0.006	0.012
I	3.30	-	0.129	-
J/L	2.40	-	0.094	-
K	-	4.20	-	0.165

■ 最大标称资料 (TA=25℃)

参数	代号	数值	单位
10/1000μs 波型峰值脉冲功耗(Note1, Fig.1)	P_{PPM}	3000	W
10/1000us 波型峰值脉冲电流.(Note1,Fig.3)	I_{PPM}	See Table	A
峰值正向浪涌电流 (Note 2)	I_{FSM}	300	A
稳态功耗 (Fig.5).	$P_{M(AV)}$	6.5	W
工作结温和存储温度范围	T_J, T_{STG}	-55~+150	ºC

注: 1. 非重复性电流脉冲如 Fig. 3, 及25℃以上减额曲线如 Fig. 2.

2. 8.3ms 单半正弦波,或相当于每分钟最多四个脉冲的方波.

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3000 W 表面贴装型

■ 电气特性 (T_A=25℃)

型号. (单向)	型号. (双向)	反向截止 电压	反向击穿电压 V_{BR} @ IT		测试 电流	最大限制 电压 VC @ Ipp	最大脉冲峰值 电流	最大反向 漏电流 IR @V_{RWM}	印字	
		V_{RWM} (V)	Min(V)	Max(V)	IT(mA)	VC(V)	Ipp(A)	IR(μA)	UNI	BI
SMDJ5.0A	SMDJ5.0CA	5	6.4	7.00	10	9.2	326.1	800	RDE	DDE
SMDJ6.0A	SMDJ6.0CA	6	6.67	7.37	10	10.3	291.3	800	RDG	DDG
SMDJ6.5A	SMDJ6.5CA	6.5	7.22	7.98	10	11.2	267.9	500	RDK	DDK
SMDJ7.0A	SMDJ7.0CA	7	7.78	8.60	10	12	250	200	PDM	DDM
SMDJ7.5A	SMDJ7.5CA	7.5	8.33	9.21	1	12.9	232.6	100	PDP	DDP
SMDJ8.0A	SMDJ8.0CA	8	8.89	9.83	1	13.6	220.6	50	PDR	DDR
SMDJ8.5A	SMDJ8.5CA	8.5	9.44	10.40	1	14.4	208.3	20	PDT	DDT
SMDJ9.0A	SMDJ9.0CA	9	10	11.10	1	15.4	194.8	10	PDV	DDV
SMDJ10A	SMDJ10CA	10	11.1	12.30	1	17	176.5	5	PDX	DDX
SMDJ11A	SMDJ11CA	11	12.2	13.50	1	18.2	164.8	2	PDZ	DDZ
SMDJ12A	SMDJ12CA	12	13.3	14.70	1	19.9	150.8	2	PEE	DEE
SMDJ13A	SMDJ13CA	13	14.4	15.90	1	21.5	139.5	2	PEG	DEG
SMDJ14A	SMDJ14CA	14	15.6	17.20	1	23.2	129.3	2	PEK	DEK
SMDJ15A	SMDJ15CA	15	16.7	18.50	1	24.4	123	2	PEM	DEM
SMDJ16A	SMDJ16CA	16	17.8	19.70	1	26	115.4	2	PEP	DEP
SMDJ17A	SMDJ17CA	17	18.9	20.90	1	27.6	108.7	2	PER	DER
SMDJ18A	SMDJ18CA	18	20	22.10	1	29.2	102.7	2	PET	DET
SMDJ20A	SMDJ20CA	20	22.2	24.50	1	32.4	92.6	2	PEV	DEV
SMDJ22A	SMDJ22CA	22	24.4	26.90	1	35.5	84.5	2	PEX	DEX
SMDJ24A	SMDJ24CA	24	26.7	29.50	1	38.9	77.1	2	PEZ	DEZ
SMDJ26A	SMDJ26CA	26	28.9	31.90	1	42.1	71.3	2	PFE	DFE
SMDJ28A	SMDJ28CA	28	31.1	34.40	1	45.4	66.1	2	PFG	DFG
SMDJ30A	SMDJ30CA	30	33.3	36.80	1	48.4	62	2	PFK	DFK
SMDJ33A	SMDJ33CA	33	36.7	40.60	1	53.3	56.3	2	PFM	DFM
SMDJ36A	SMDJ36CA	36	40	44.20	1	58.1	51.6	2	PFP	DFP
SMDJ40A	SMDJ40CA	40	44.4	49.10	1	64.5	46.5	2	PFR	DFR
SMDJ43A	SMDJ43CA	43	47.8	52.80	1	69.4	43.2	2	PFT	DFT
SMDJ45A	SMDJ45CA	45	50	55.30	1	72.7	41.3	2	PFV	DFV
SMDJ48A	SMDJ48CA	48	53.3	58.90	1	77.4	38.8	2	PFX	DFX

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		VRWM (V)	Min(V)	Max(V)	IT(mA)	VC(V)	Ipp(A)	IR(μA)	UNI	BI
SMDJ51A	SMDJ51CA	51	56.7	62.70	1	82.4	36.4	2	PFZ	DFZ
SMDJ54A	SMDJ54CA	54	60	66.30	1	87.1	34.4	2	PGE	DGE
SMDJ58A	SMDJ58CA	58	64.4	71.20	1	93.6	32.1	2	PGG	DGG
SMDJ60A	SMDJ60CA	60	66.7	73.70	1	96.8	31	2	PGK	DGK
SMDJ64A	SMDJ64CA	64	71.1	78.60	1	103	29.1	2	PGM	DGM
SMDJ70A	SMDJ70CA	70	77.8	86.00	1	113	26.5	2	PGP	DGP
SMDJ75A	SMDJ75CA	75	83.3	92.10	1	121	24.8	2	PGR	DGR
SMDJ78A	SMDJ78CA	78	86.7	95.80	1	126	23.8	2	PGT	DGT
SMDJ85A	SMDJ85CA	85	94.4	104.00	1	137	21.9	2	PGV	DGV
SMDJ90A	SMDJ90CA	90	100.00	111.00	1	146	20.5	2	PGX	DGX
SMDJ100A	SMDJ100C	100	111.00	123.00	1	162	18.5	2	PGZ	DGZ
SMDJ110A	SMDJ110CA	110	122.00	135.00	1	177	16.9	2	PHE	DHE
SMDJ120A	SMDJ120CA	120	133.00	147.00	1	193	15.5	2	PHG	DHG
SMDJ130A	SMDJ130CA	130	144.00	159.00	1	209	14.4	2	PHK	DHK
SMDJ150A	SMDJ150CA	150	167.00	185.00	1	243	12.3	2	PHM	DHM
SMDJ160A	SMDJ160CA	160	178.00	197.00	1	259	11.6	2	PHP	DHP
SMDJ170A	SMDJ170CA	170	189.00	209.00	1	275	10.9	2	PHR	DHR
SMDJ180A	SMDJ180CA	180	201.00	222.00	1	292	10.3	2	HHT	IHT
SMDJ190A	SMDJ190CA	190	211.00	233.00	1	308	9.7	2	HHV	IHV
SMDJ200A	SMDJ200CA	200	224.00	247.00	1	324	9.3	2	HHX	IHX
SMDJ210A	SMDJ210CA	210	237.00	263.00	1	340	8.8	2	HHZ	IHZ
SMDJ220A	SMDJ220CA	220	246.00	272.00	1	356	8.4	2	HIE	IIE

■ 特性曲线图 (T_A=25℃)

Figure 1. Peak Pulse Power Rating Curve

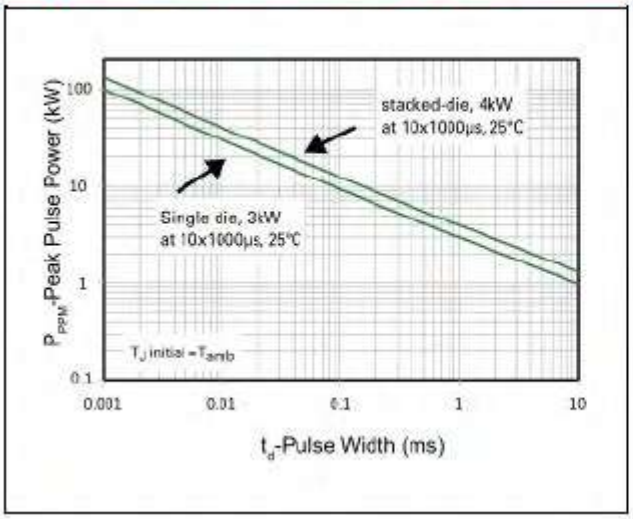


Figure 2. Pulse Derating Curve

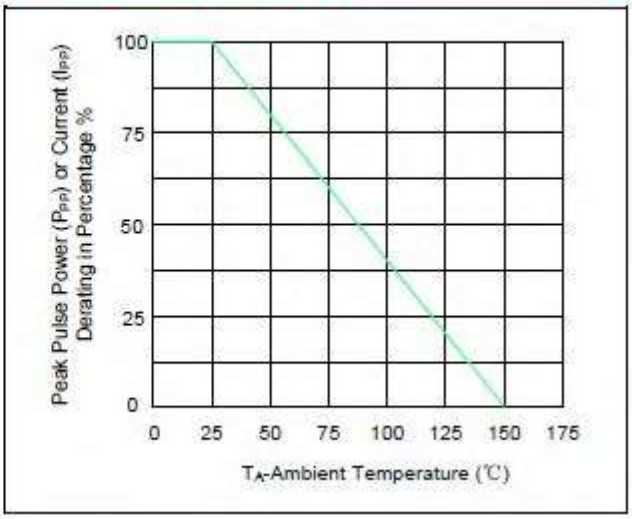


Figure 3. Pulse Waveform

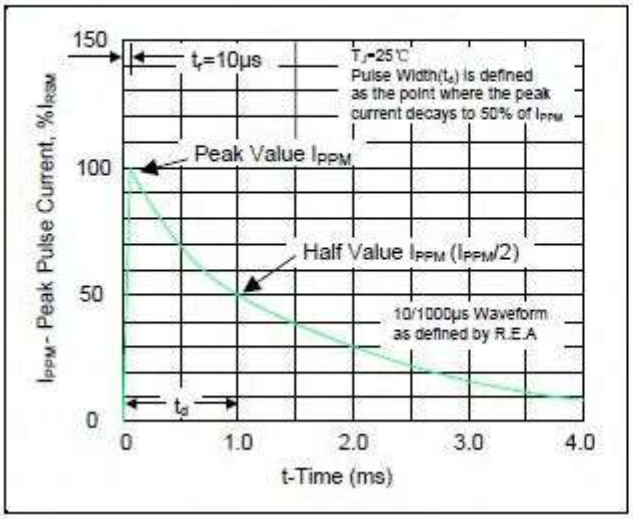


Figure 4. Typical Junction Capacitance

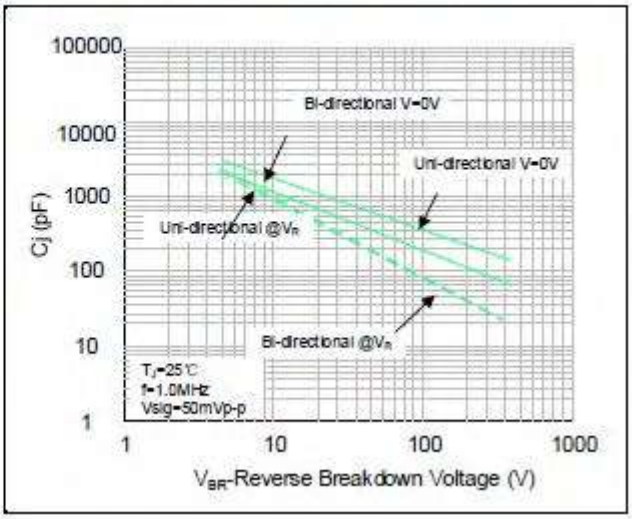


Figure 5. Steady State Power Dissipation DeratingCurve

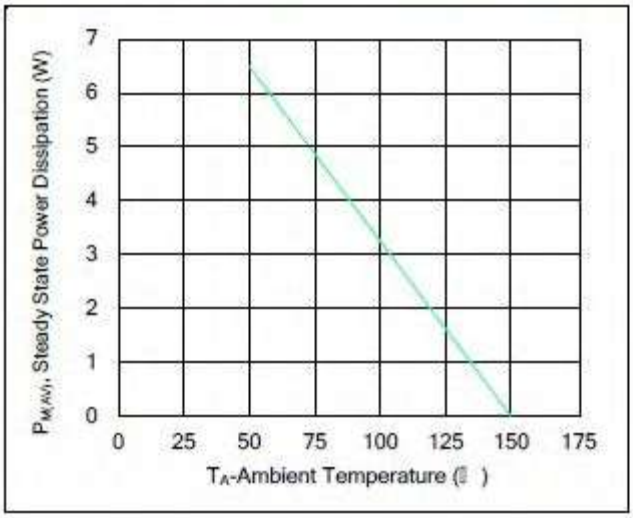
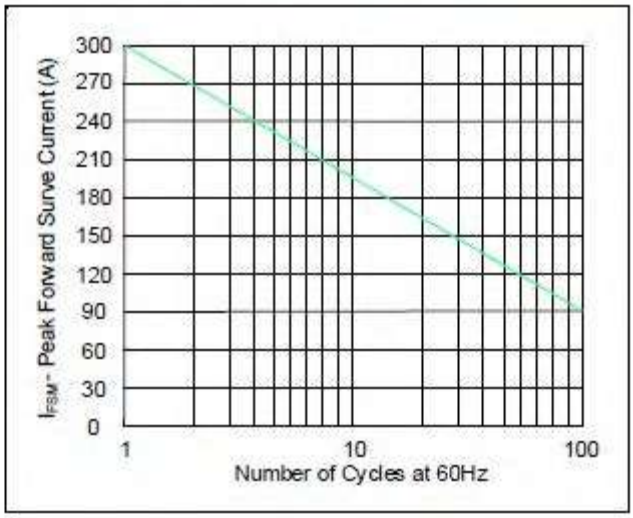
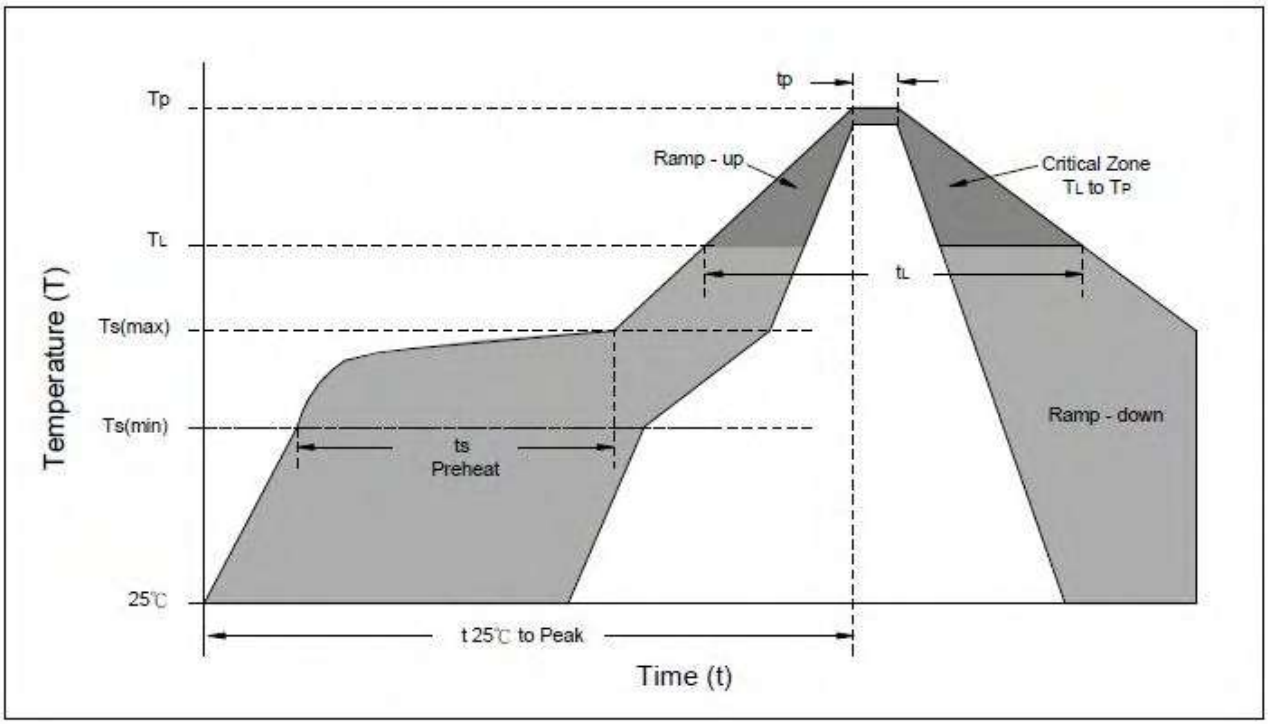


Figure 6. Maximum Non-Repetitive Forward Surge Current

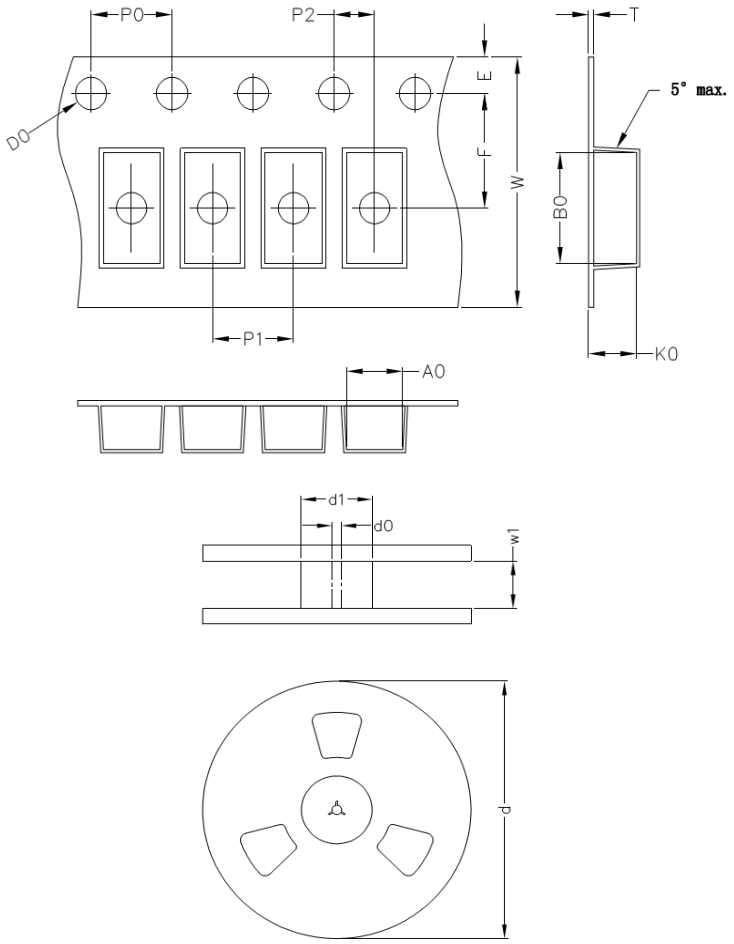


■ 推荐焊接条件



Reflow Condition	Lead-free assembly
Preheat -Temperature Min(Ts min) -Temperature Min(Ts max) -Time (min to max) (ts)	 150℃ 200℃ 60 – 180 seconds
Average ramp up rate -Temperature Liquidus (TL) to peak	 3℃/second max
Ts(max) to TL -Ramp-up Rate	 3℃/second max.
Reflow -Temperature Liquidus (TL) -Time (tL)	 217℃ 60 – 150 seconds
Peak Temperature (TP)	260℃
Time within 5℃ of actual peak Temperature(tP)	20 – 40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to peak Temperature(TP)	8 minutes max.
Do not exceed	260℃

■ 包装



代号	DO-214AB (SMC) 单位: mm
A0	6.05
B0	8.31
K0	2.54
D0	1.55
E	1.75
F	7.50
P0	4.00
P1	8.00
P2	2.00
T	0.25
W	16.00
d (13")	330.00
d1	75
d0	13.50
w1	17.00

注:尺寸公差为 ±0.1mm, 卷轴公差 ±2mm

■ 数量

封装型式	尺寸	卷
	inch	Kpcs
SMC	13	3

■ 仓库存储条件

● 存储条件:

1.储存温度: -10℃~+40℃

2.相对湿度: ≦75%RH

3.不要将本产品存放在有腐蚀性气体或是阳光直接照射的环境中保管

● 存储期限: 1 年