P6SMB6.8CA

SMB 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



■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}	600	W
Reverse Stand-off Work Voltage 反向工作电压	V_{RWM}	6.8~600	V
Peak Pulse Current 峰值脉冲电流	I_{PP}	57.1~0.7	A
Peak Forward Surge Current 峰值正向浪涌电流(UNI)	I_{FSM}	100	A
Forward Voltage@I_F=35A 正向电压(UNI)	V_F	3.5	V
Thermal Resistance Junction-Lead 结到管脚热阻	$R_{\theta JC}$	20	℃/W
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	95	℃/W
Soldering Temperature/Time 焊接温度/时间	T_L	260/10	℃/S
Junction/Storage Temperature 结温/储存温度	T_J,T_{stg}	-55~150	℃

■Electrical Characteristics 电特性

(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃**)**

Part Number(Uni)	Part Number(Bi)	Breakdown Voltage VBR@I_T			Maximum Reverse Leakage Current IR@V_{RWM}(μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current IPP(A)	Maximum ClampingVoltage Vc@ IPP(V)
		Min(V)	Max (V)	I_T (mA)				
P6SMB6.8A	P6SMB6.8CA	6.46	7.14	10	1000	5.8	57.1	10.5
P6SMB7.5A	P6SMB7.5CA	7.13	7.88	10	500	6.4	53.1	11.3
P6SMB8.2A	P6SMB8.2CA	7.79	8.61	10	200	7.0	49.6	12.1
P6SMB9.1A	P6SMB9.1CA	8.65	9.56	1	50	7.8	44.7	13.4
P6SMB10A	P6SMB10CA	9.50	10.50	1	10	8.6	41.3	14.5
P6SMB11A	P6SMB11CA	10.45	11.55	1	5	9.4	38.4	15.6
P6SMB12A	P6SMB12CA	11.40	12.60	1	5	10.2	35.9	16.7
P6SMB13A	P6SMB13CA	12.35	13.65	1	5	11.1	32.9	18.2
P6SMB15A	P6SMB15CA	14.25	15.75	1	5	12.8	28.3	21.2
P6SMB16A	P6SMB16CA	15.20	16.80	1	5	13.6	26.6	22.5
P6SMB18A	P6SMB18CA	17.10	18.90	1	5	15.3	23.8	25.2
P6SMB20A	P6SMB20CA	19.00	21.00	1	5	17.1	21.6	27.7
P6SMB22A	P6SMB22CA	20.90	23.10	1	5	18.8	19.6	30.6
P6SMB24A	P6SMB24CA	22.80	25.20	1	5	20.5	18.1	33.2
P6SMB27A	P6SMB27CA	25.65	28.35	1	5	23.1	16.0	37.5
P6SMB30A	P6SMB30CA	28.50	31.50	1	5	25.6	14.5	41.4
P6SMB33A	P6SMB33CA	31.35	34.65	1	5	28.2	13.1	45.7
P6SMB36A	P6SMB36CA	34.20	37.80	1	5	30.8	12.0	49.9
P6SMB39A	P6SMB39CA	37.05	40.95	1	5	33.3	11.1	53.9
P6SMB43A	P6SMB43CA	40.85	45.15	1	5	36.8	10.1	59.3
P6SMB47A	P6SMB47CA	44.65	49.35	1	5	40.2	9.2	64.8
P6SMB51A	P6SMB51CA	48.45	53.55	1	5	43.6	8.5	70.1
P6SMB56A	P6SMB56CA	53.20	58.80	1	5	47.8	7.8	77.0
P6SMB62A	P6SMB62CA	58.90	65.10	1	5	53.0	7.0	85.0
P6SMB68A	P6SMB68CA	64.60	71.40	1	5	58.1	6.5	92.0
P6SMB75A	P6SMB75CA	71.25	78.75	1	5	64.1	5.8	103.0
P6SMB82A	P6SMB82CA	77.90	86.10	1	5	70.1	5.3	113.0
P6SMB91A	P6SMB91CA	86.45	95.35	1	5	77.8	4.8	125.0
P6SMB100A	P6SMB100CA	95.00	105.00	1	5	85.5	4.3	137.0
P6SMB110A	P6SMB110CA	104.50	115.50	1	5	94.0	3.9	152.0
P6SMB120A	P6SMB120CA	114.00	126.00	1	5	102.0	3.6	165.0
P6SMB130A	P6SMB130CA	123.50	136.50	1	5	111.0	3.3	179.0
P6SMB150A	P6SMB150CA	142.50	157.50	1	5	128.0	2.9	207.0
P6SMB160A	P6SMB160CA	152.00	168.00	1	5	136.0	2.7	219.0
P6SMB170A	P6SMB170CA	161.50	178.50	1	5	145.0	2.5	234.0
P6SMB180A	P6SMB180CA	171.00	189.00	1	5	154.0	2.4	246.0
P6SMB200A	P6SMB200CA	190.00	210.00	1	5	171.0	2.2	274.0
P6SMB220A	P6SMB220CA	209.00	231.00	1	5	185.0	1.8	328.0
P6SMB250A	P6SMB250CA	237.50	262.50	1	5	214.0	1.7	344.0
P6SMB300A	P6SMB300CA	285.00	315.00	1	5	256.0	1.4	414.0
P6SMB350A	P6SMB350CA	332.50	367.50	1	5	299.3	1.2	482.0
P6SMB380A	P6SMB380CA	361.00	399.00	1	5	324.9	1.1	524.4
P6SMB400A	P6SMB400CA	380.00	420.00	1	5	342.0	1.1	548.0
P6SMB440A	P6SMB440CA	418.00	462.00	1	5	376.2	1.0	607.2
P6SMB500A	P6SMB500CA	475.00	525.00	1	5	427.5	0.8	690.0
P6SMB520A	P6SMB520CA	494.00	546.00	1	5	444.6	0.8	717.6
P6SMB550A	P6SMB550CA	522.50	577.50	1	5	470.3	0.8	759.0
P6SMB600A	P6SMB600CA	570.00	630.00	1	5	513.0	0.7	828.0

■Typical Characteristic Curve 典型特性曲线

FIG.1-PEAK PULSE POWER DERATING CURVE

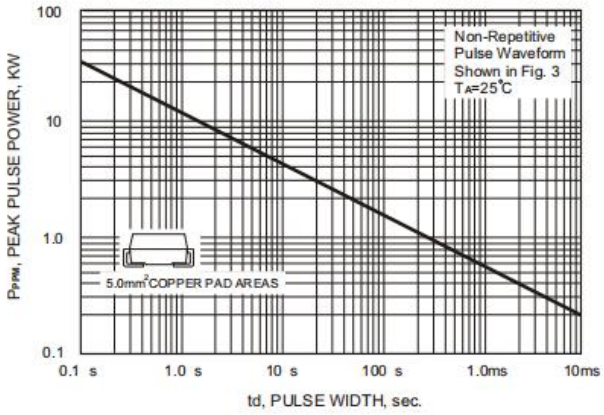


FIG.2-PULSE DERATING CURVE

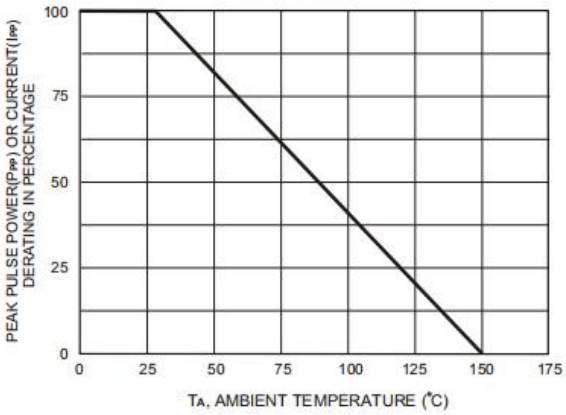


FIG.3-PULSE WAVE FORM

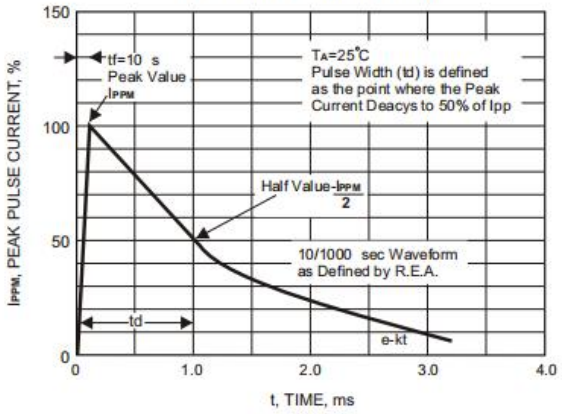


FIG.4-TYPICAL JUNCTION CAPACITANCE

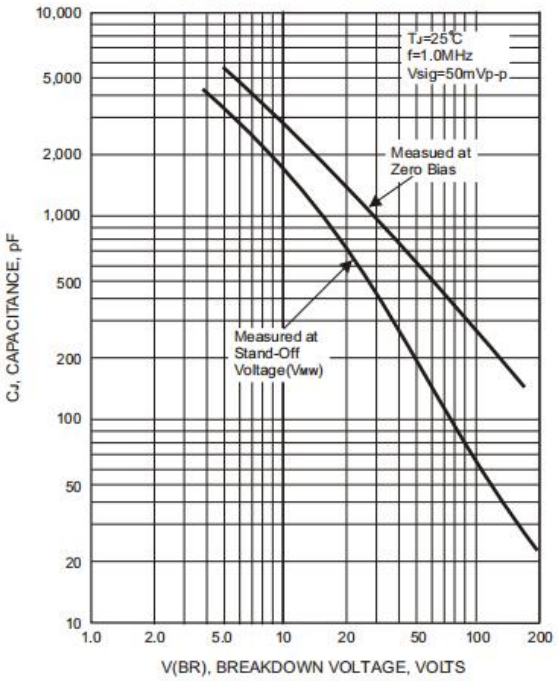
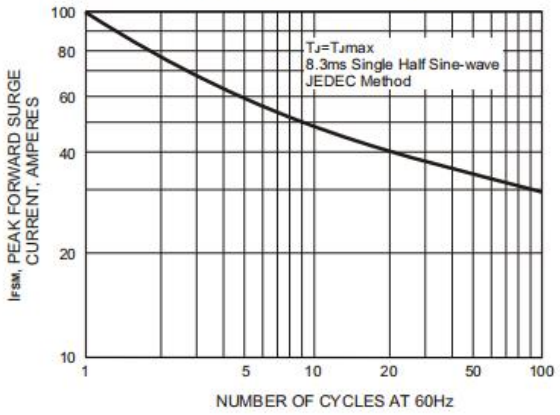
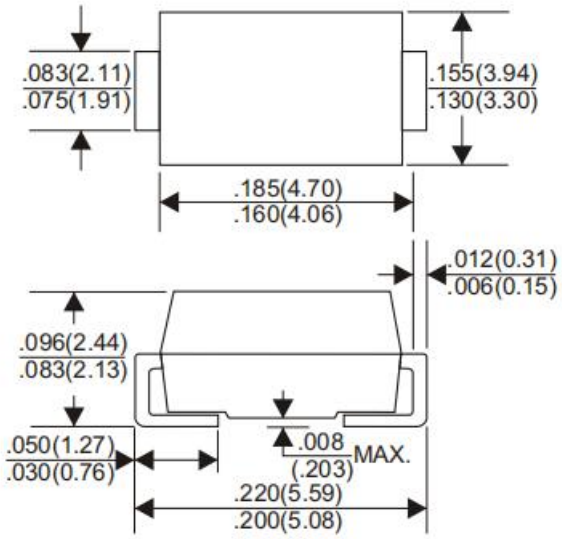


FIG.5-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT



■**Dimension** 外形封装尺寸

DO-214AA(SMB)



Dimensions in inches and (millimeters)