

描述 / Descriptions

表面贴装整流二极管，反向电压：1000V，正向电流：2.0A，SMA 封装。
Surface Mount General Purpose Silicon Rectifiers, Reverse Voltage：1000V, Forward Current:2.0A ,SMA package.

特征 / Features

玻璃钝化芯片，无铅符合欧盟 RoHS 指令 2011/65/EU，适用表面贴装，符合 AEC-Q101 标准高可靠性要求，无卤产品。
Glass Passivated Chip Junction, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

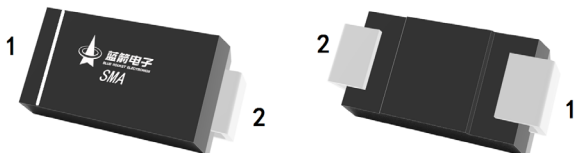
用途 / Applications

一般用途，满足汽车应用的严格要求。
General purpose, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit

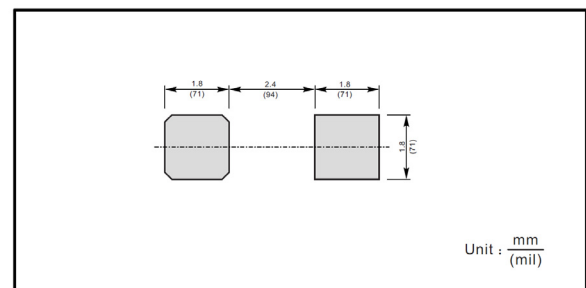


引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



印章代码 / Marking

见印章说明。
See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
		BRS2MQ	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	1000	V
Maximum RMS voltage	V _{RMS}	700	V
Maximum DC Blocking Voltage	V _{DC}	1000	V
Maximum Average Forward Rectified Current@ Fig.1	I _{F(AV)}	2	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	50	A
Peak Forward Surge Current,1ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	100	A
I ² t Rating for fusing(3ms≤t≤8.3ms)	I ² t	10.4	A ² s
Typical Junction Capacitance at V _R =4V f=1MHz	C _j	10	pF
Typical Thermal Resistance ¹⁾	R _{θJA}	100	°C/W
	R _{θJC}	20	°C/W
	R _{θJL}	25	°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150	°C

Note:

1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
			BRS2MQ	
Maximum Instantaneous Forward Voltage	V _F	I _F =2A	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _j =25°C	5	μA
		T _j =125°C	100	μA

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

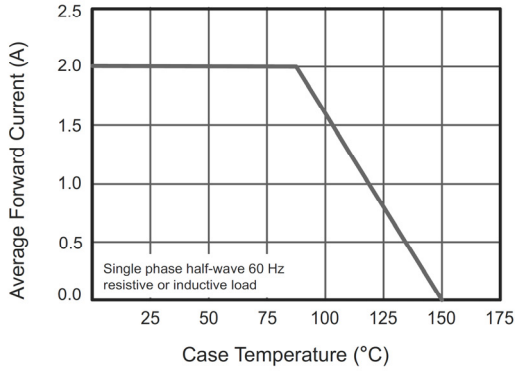


Fig.2 Typical Instaneous Reverse Characteristics

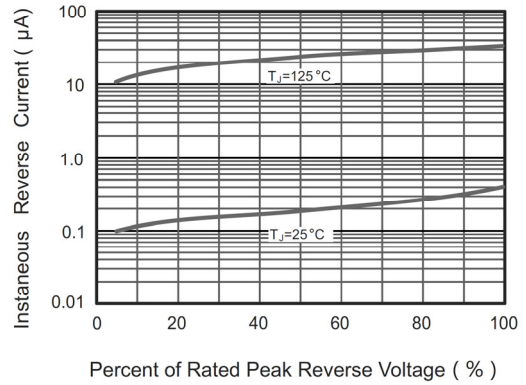


Fig.3 Typical Forward Characteristic

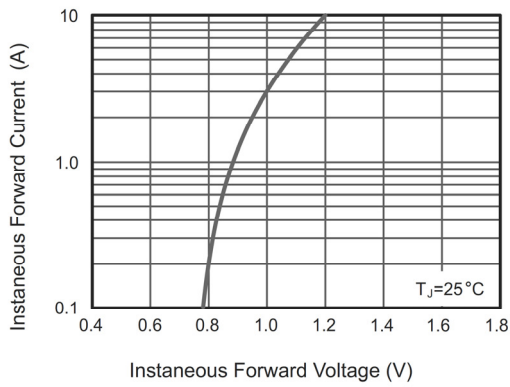


Fig.4 Typical Junction Capacitance

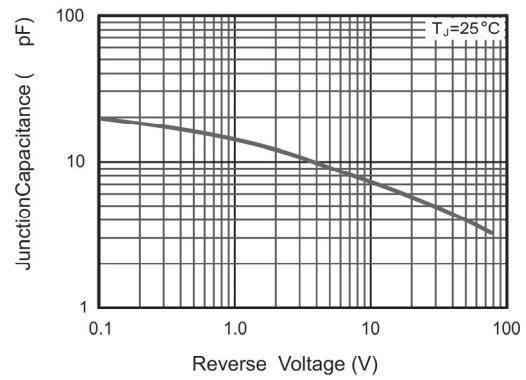
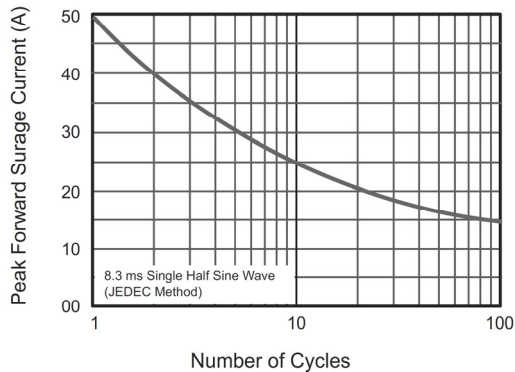


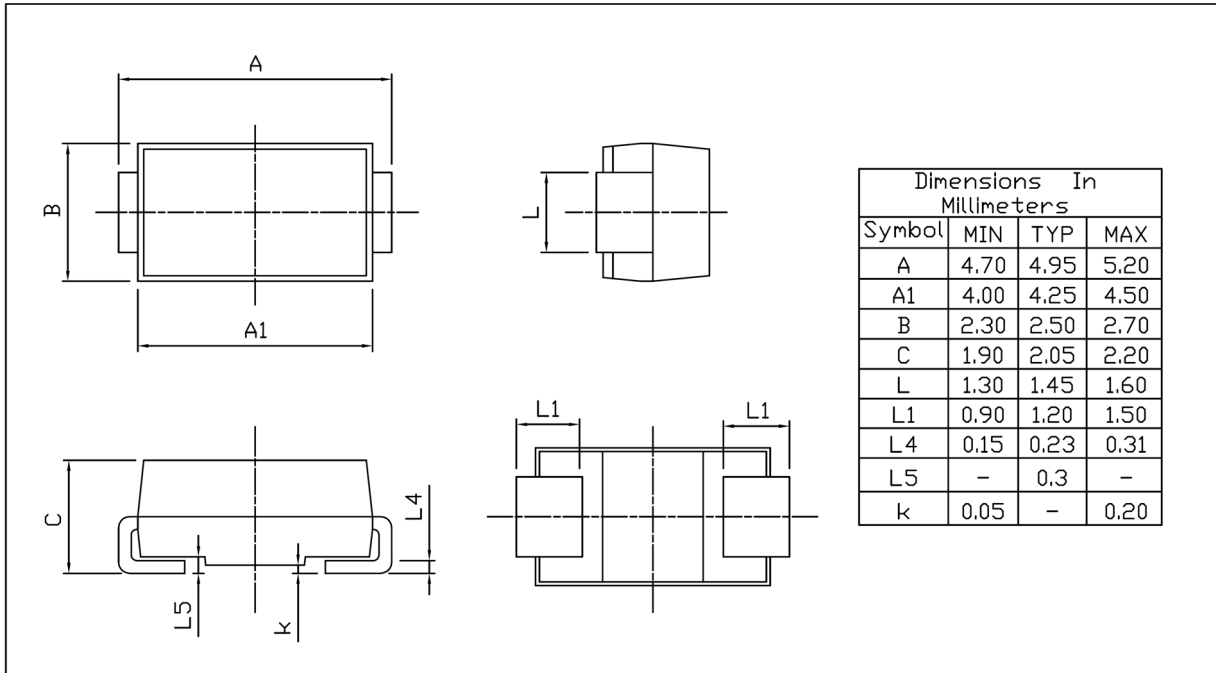
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



外形尺寸图 / Package Dimensions

SMA

Unit:mm



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印章说明 / Marking Instructions



说明：

S2M： 为型号代码

Q： 为汽车无卤产品标识

****： 为生产批号代码，随生产批号变化

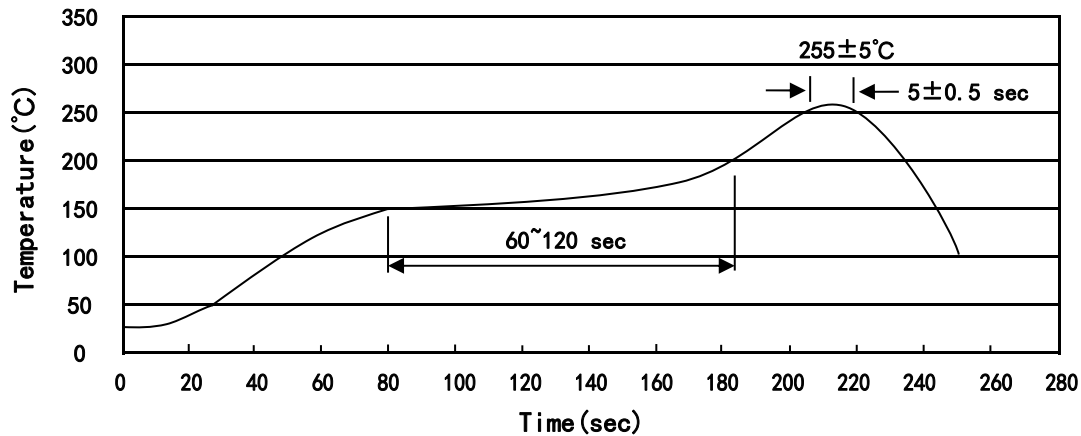
Note:

S2M： Product Type Code

Q: Automobile halogen-free product Code

****： Lot No. Code, code change with Lot No

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~200°C，时间 60~120sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SMA	5,000	2	10,000	7	70,000	13" ×12	336×336×40	380×335×366

使用说明 / Notices