

BRSS32Q~BRSS320Q

Rev.A Sep.-2022

描述 / Descriptions

表面贴装肖特基整流二极管，反向电压：20V~200V，正向电流：3.0A，SMA 封装。

Surface Mount Schottky Barrier Rectifiers, Reverse Voltage : 20 to 200V, Forward Current: 3.0A ,SMA package.

特征 / Features

低功耗，高效率，高正向浪涌电流能力，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。

Low power loss, high efficiency , High forward surge current capability , 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

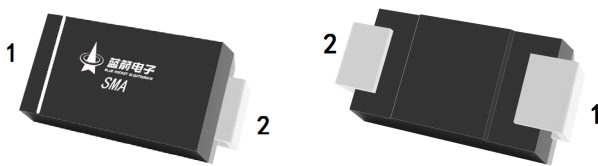
一般用途，满足汽车应用的严格要求。

General purpose, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit

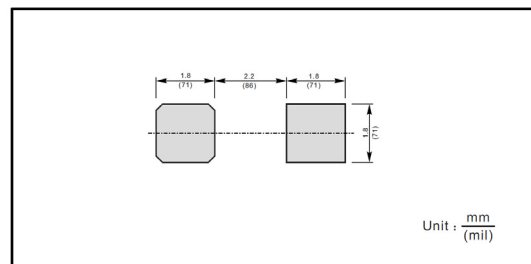


引脚排列 / Pinning



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
		BRSS32Q	BRSS34Q	BRSS345Q	BRSS36Q	BRSS38Q	BRSS310Q	BRSS312Q	BRSS315Q	BRSS320Q	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	45	60	80	100	120	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	31.5	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	45	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	3.0									A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	80									A
Typical Junction Capacitance	C _j	250			180						pF
Typical Thermal Resistance ¹⁾	R _{θJA}	70									°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150									°C

Note:

1) P.C.B. mounted with 2.0 X 2.0" (5 X5 cm) 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
			BRSS32Q	BRSS34Q	BRSS345Q	BRSS36Q	BRSS38Q	BRSS310Q	BRSS312Q	BRSS315Q	BRSS320Q	
Maximum Instantaneous Forward Voltage	V _F	I _F =3.0A	0.55			0.70	0.85			0.95	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _a =25°C	0.5			0.3						mA
		T _a =100°C	5.0			3.0						mA

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

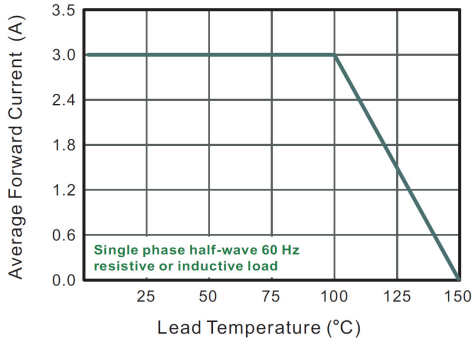


Fig.2 Typical Reverse Characteristics

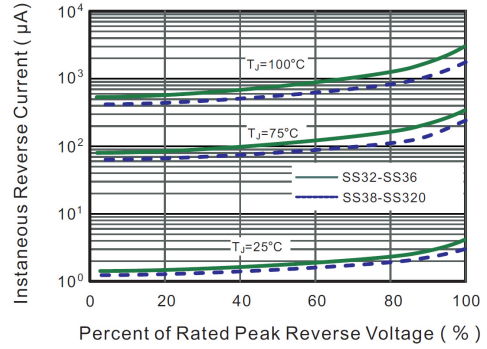


Fig.3 Typical Forward Characteristic

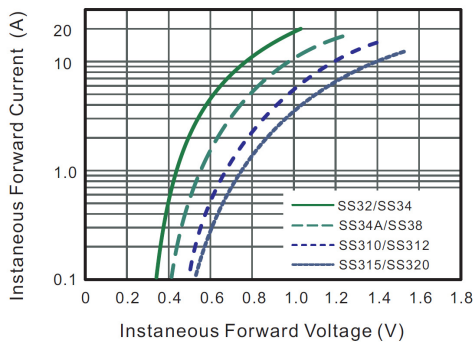


Fig.4 Typical Junction Capacitance

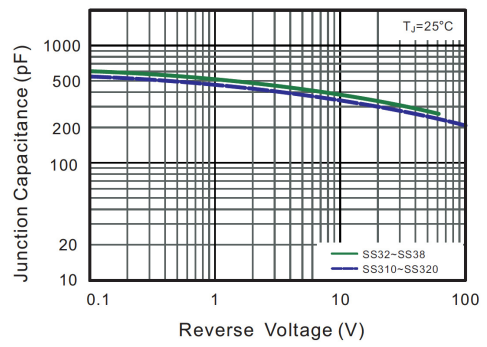


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

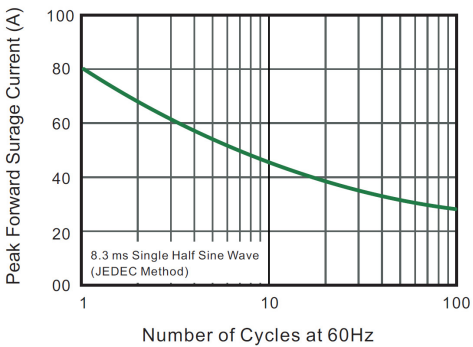
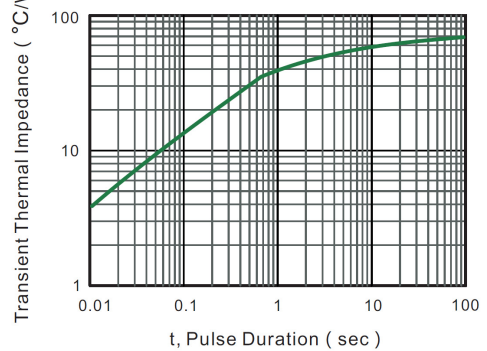
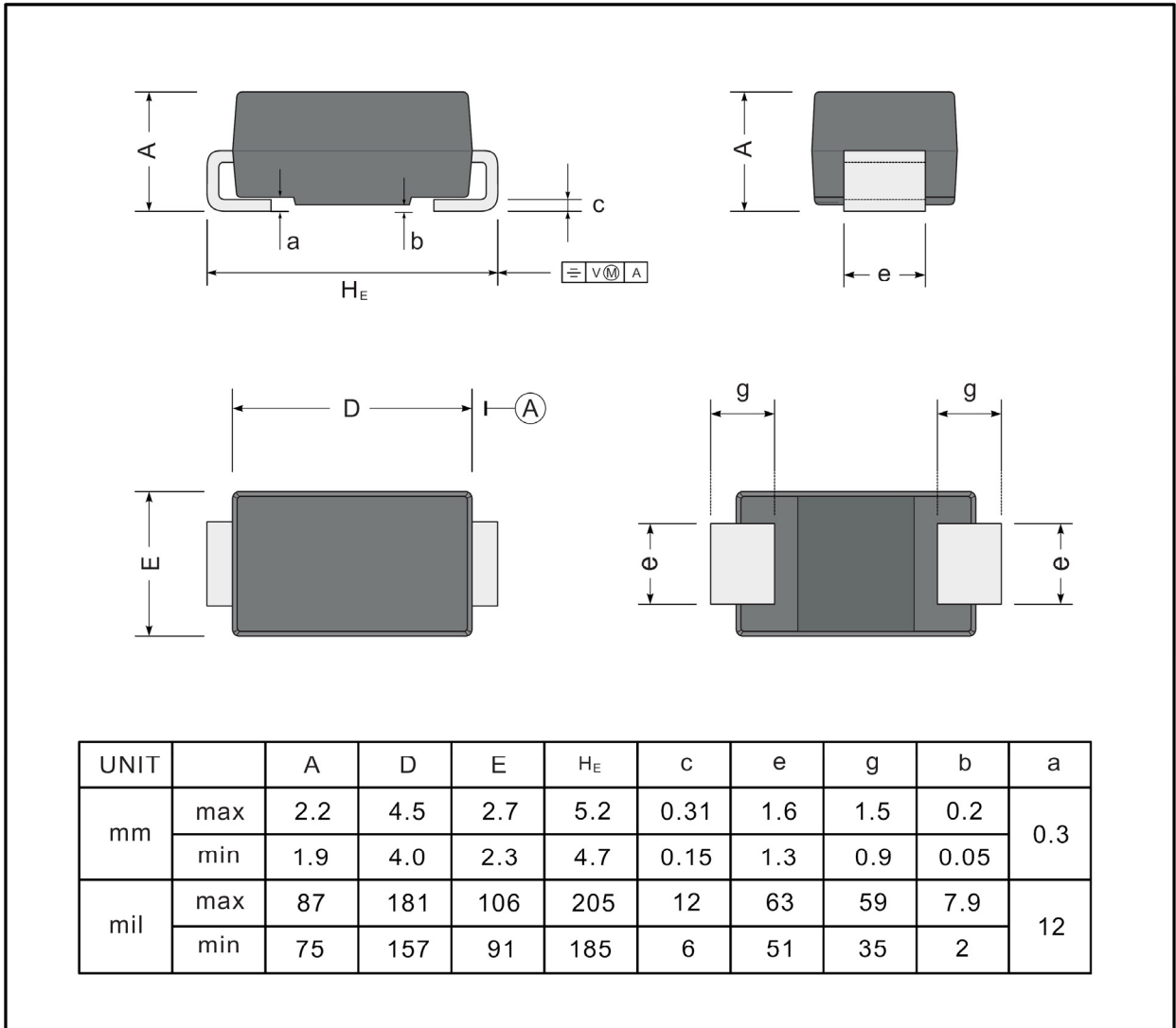


Fig.5- Typical Transient Thermal Impedance



外形尺寸图 / Package Dimensions

SMA



印章说明 / Marking Instructions



说明：

SS32： 为型号代码

Q： 为汽车无卤产品标识

****： 为生产批号追溯码，第 1 个*为年月代码，后面 3 个*为当月小批号代码

Note:

SS32： Product Type Code

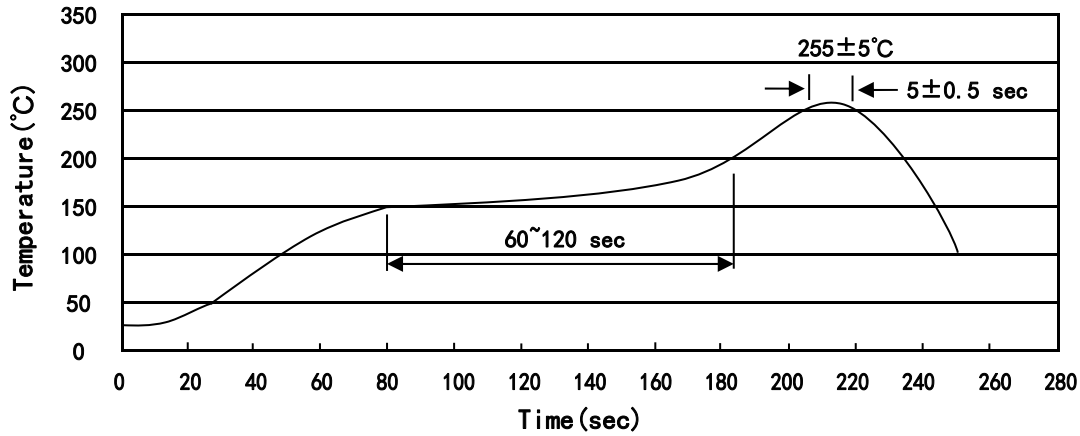
Q: Automobile halogen-free product Code

****： Lot No. Code ,The 1st * means:YM Code ,The last 3 * means:little Lot No Code

Marking

Type number	Marking code
BRSS32Q	SS32Q
BRSS34Q	SS34Q
BRSS34AQ	SS34AQ
BRSS36Q	SS36Q
BRSS38Q	SS38Q
BRSS310Q	SS310Q
BRSS312Q	SS312Q
BRSS315Q	SS315Q
BRSS320Q	SS320Q

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 $150 \sim 200^\circ\text{C}$ ，时间 $60 \sim 120 \text{ sec}$;
- 2、峰值温度 $255 \pm 5^\circ\text{C}$ ，时间持续为 $5 \pm 0.5 \text{ sec}$;
- 3、焊接制程冷却速度为 $2 \sim 10^\circ\text{C}/\text{sec}$.

Note:

- 1.Preheating: $150 \sim 200^\circ\text{C}$, Time: $60 \sim 120 \text{ sec}$.
- 2.Peak Temp.: $255 \pm 5^\circ\text{C}$, Duration: $5 \pm 0.5 \text{ sec}$.
3. Cooling Speed: $2 \sim 10^\circ\text{C}/\text{sec}$.

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

温度： $260 \pm 5^\circ\text{C}$

时间： $10 \pm 1 \text{ sec}$.

Temp.: $260 \pm 5^\circ\text{C}$

Time: $10 \pm 1 \text{ sec}$

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	5000	2	10000	7	70000	13" × 12	336X336X40	380X335X366

使用说明 / Notices