BRSS210BQ

Rev.A May.-2023

DATA SHEET

描述 / Descriptions

表面贴装肖特基整流二极管，反向电压：100V，正向电流：2.0A， SMB 封装。

Surface Mount Schottky Barrier Rectifiers, Reverse Voltage：100V,Forward Current:2.0A ,SMB 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.

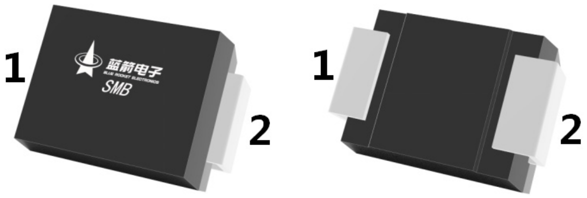
用途 / Applications

一般用途，满足汽车应用的严格要求。

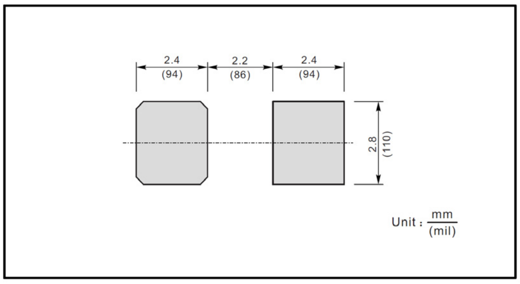
General purpose,Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit

引脚排列 / Pinning



The recommended mounting pad size



PIN	DESCRIPTION
1	Cathode
2	Anode

印章代码 / Marking

见印章说明。See Marking Instructions.

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

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
		BRSS210BQ	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50	A
Typical Junction 1) Capacitance at	C_j	200	pF
Typical Thermal Resistance 2)	$R_{θJA}$	75	℃/W
	$R_{θJC}$	30	
	$R_{θJL}$	15	
Operating and Storage Temperature Range	T_j,T_{stg}	-55~+150	℃

Note:

1)Measured at 1 MHz and applied reverse voltage of 4 V D.C

2)P.C.B with 5×5mm copper pads,2 OZ,FR4 PCB

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

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
			BRSS210BQ	
Maximum Instantaneous Forward Voltage	V_F	I_F=2.0A	0.79	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	T_a=25℃	30	μA
		T_a=125℃	2000	μA

电参数曲线图 / Electrical Characteristic Curve

(TA = 25℃ unless otherwise noted)

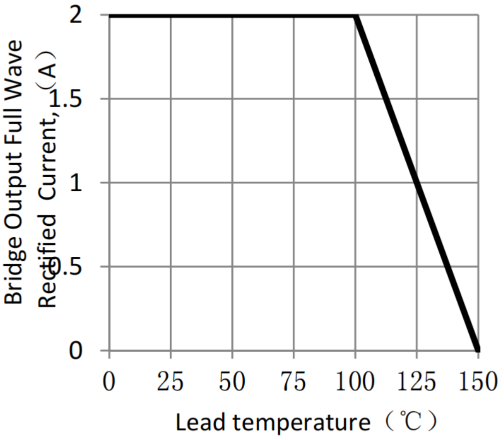


Figure 1.Forward Current Derating Curve

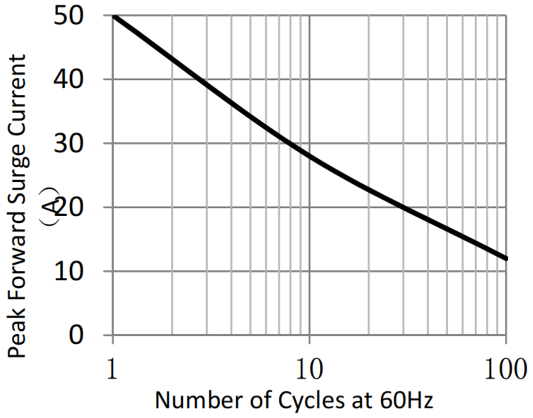


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

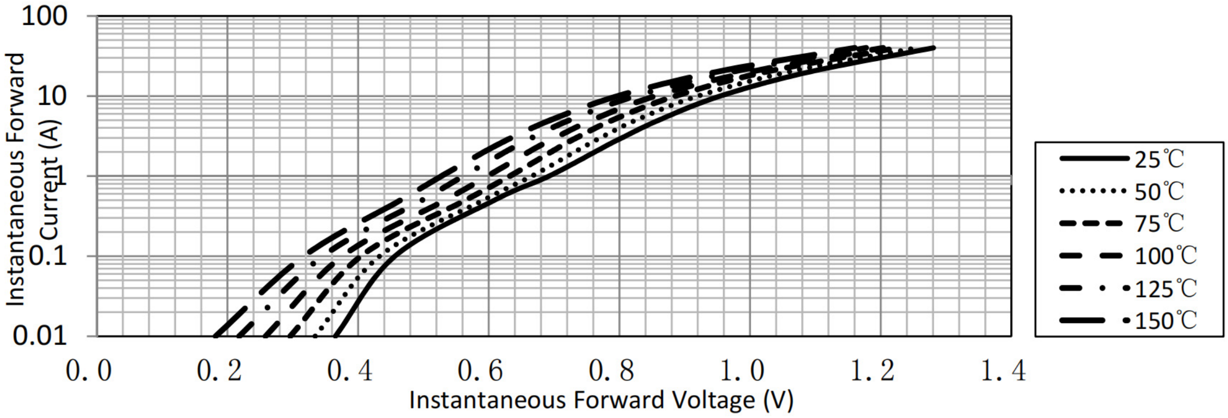


Figure 3. Typical Instantaneous Forward Characteristics

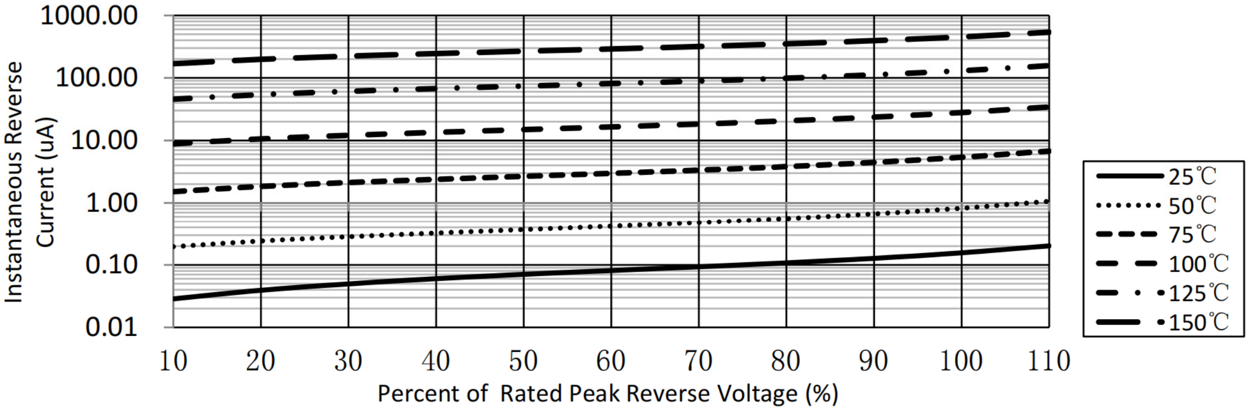
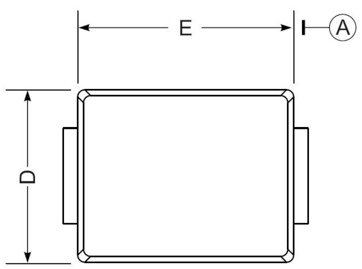
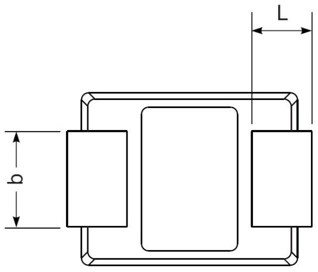


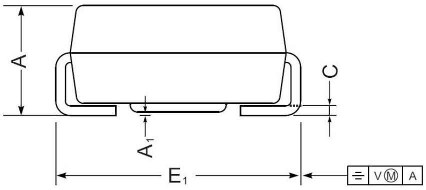
Figure 4. Typical Reverse Characteristics

外形尺寸图 / Package Dimensions

SMB



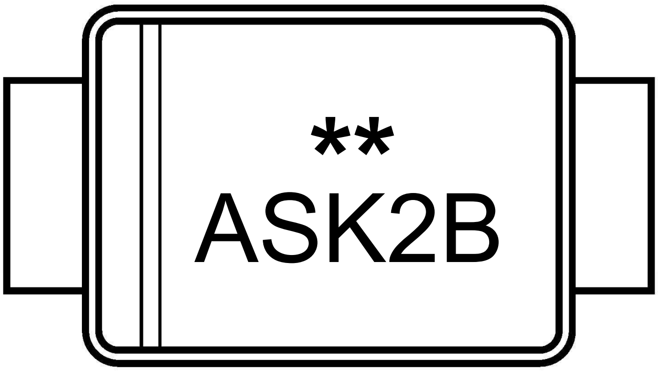




SMB mechanical data

UNIT		A	E	D	E_1	A_1	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

印章说明 / Marking Instructions



说明：

ASK2B： 为型号代码

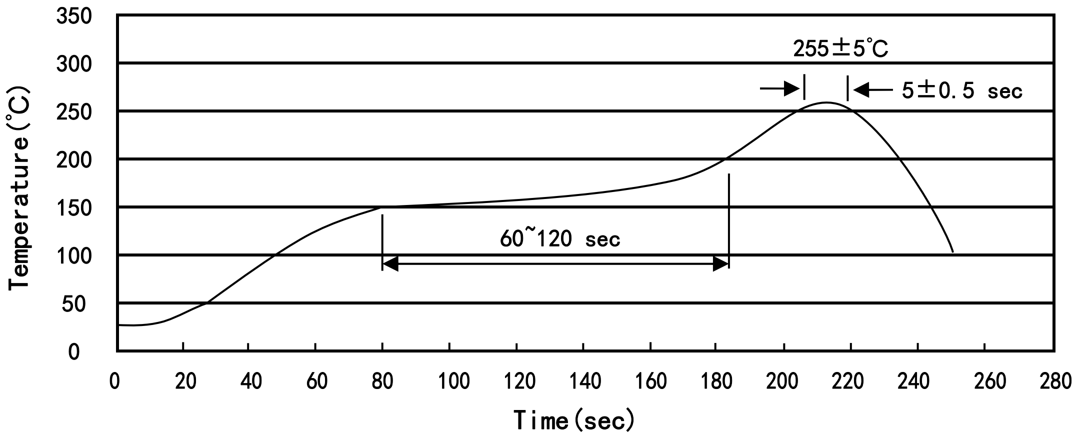
** ： 为生产批号追溯码，第 1 个*为年代码，后面 1 个*为月代码

Note:

ASK2B： Product Type Code

** ： Lot No. Code，The 1st * means:Y Code，The last 1 * means:M Code

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



说明： Note:

1、预热温度 150～200℃，时间 60～120sec; 1.Preheating:150~200℃, Time:60~120sec.

2、峰值温度 255±5℃，时间持续为 5±0.5sec; 2.Peak Temp.:255±5℃, Duration:5±0.5sec.

3、焊接制程冷却速度为 2～10℃/sec. 3. Cooling Speed: 2~10℃/sec.

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

温度：260±5℃ 时间：10±1 sec. Temp.:260±5℃ 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
SMB	3000	5	15000	5	75000	7″ ×11	185X180X105	390X385X205

使用说明 / Notices