

BRDS22WQ~BRDS220WQ

Rev.A Aug.-2024

描述 / Descriptions

表面贴装肖特基整流二极管，反向电压：20~200V，正向电流：2.0A，薄型 SOD-123FL 封装。
Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 20 to 200 V, Forward Current: 2.0A, SOD-123FL thin package.

特征 / Features

低功耗，高效率，浪涌电流大，应用于低压、高频转换和极性保护，适用于表面贴装，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, For use in low voltage, high frequency inverters, and polarity protection applications, For surface mounted applications, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

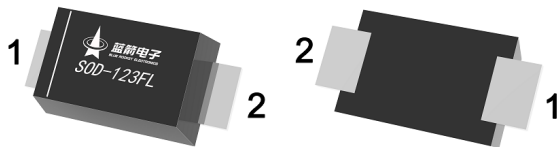
一般用途，满足汽车应用的严格要求。

General purpose, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit

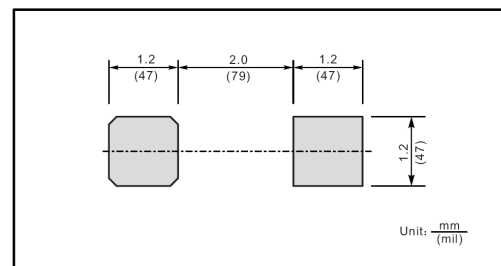


引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



印章代码 / Marking

见印章说明。

See Marking Instructions.

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DATA SHEET

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

参数 Parameter	符号 Symbol	数值 Rating								单位 Unit
		BRDS22WQ	BRDS24WQ	BRDS26WQ	BRDS28WQ	BRDS210WQ	BRDS212WQ	BRDS215WQ	BRDS220WQ	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V _{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	2.0								A
Peak Forward Surge Current, 8.3ms Single Half sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	50				40				A
Typical Junction Capacitance ¹⁾	C _i	220			80					pF
Operating Junction Temperature Range	T _j	-55~+125								°C
Storage Temperature Range	T _{stg}	-55~+150								°C

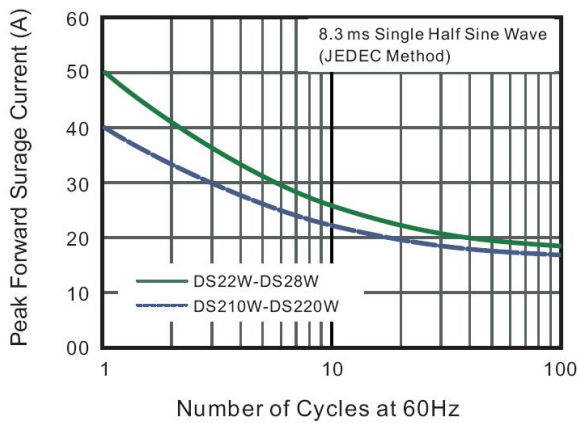
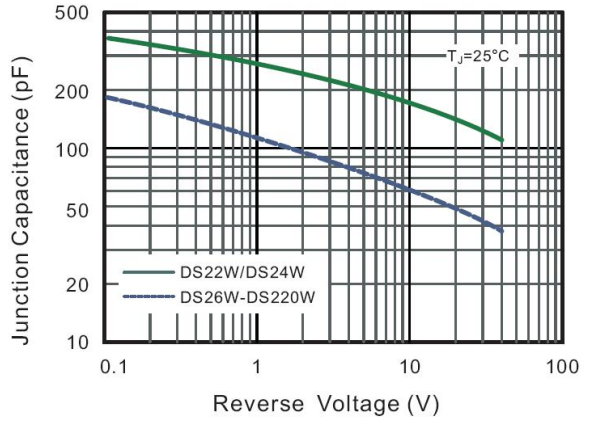
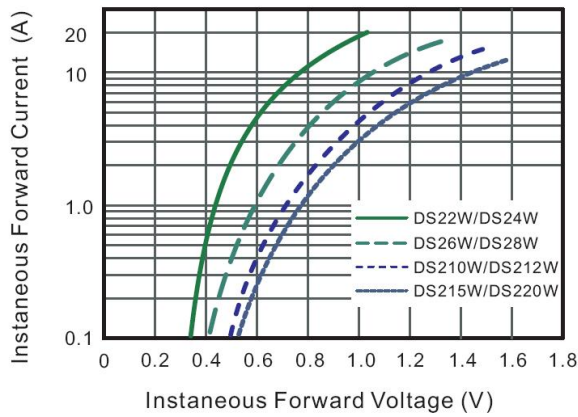
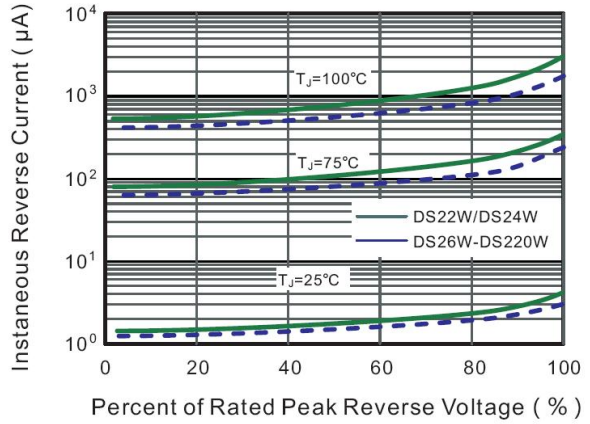
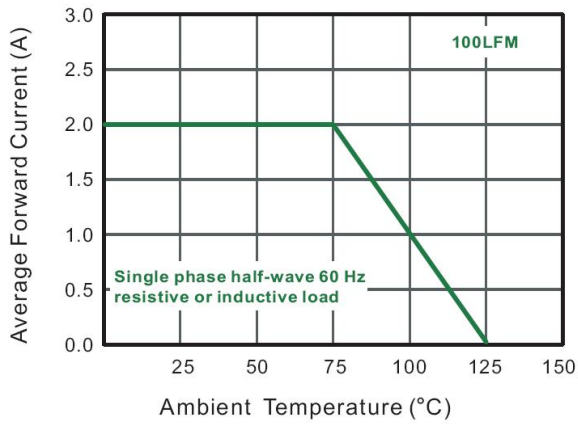
Note:

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

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

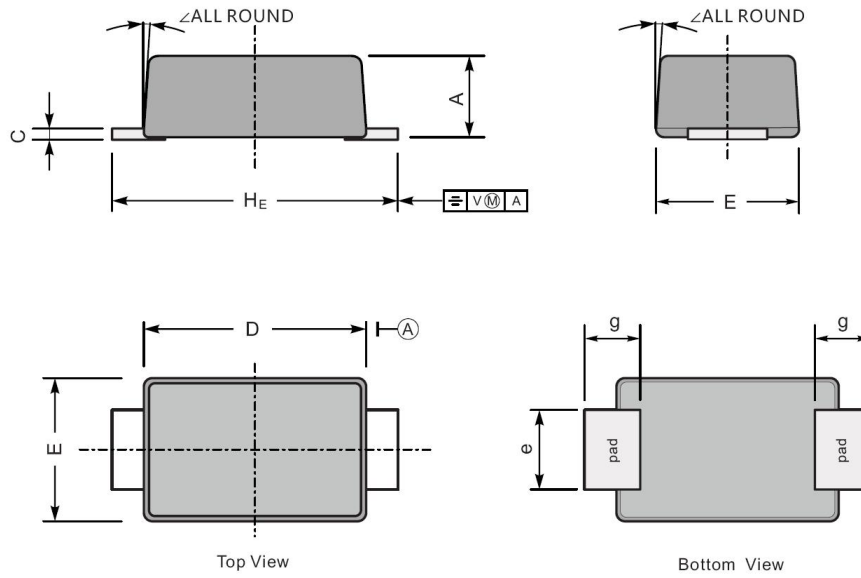
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating						单位 Unit	
			BRDS22WQ	BRDS24WQ	BRDS26WQ	BRDS28WQ	BRDS210WQ	BRDS212WQ		BRDS215WQ
Max Instantaneous Forward Voltage	V _F	I _F =2.0A	0.55		0.70		0.85		0.95	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I _R	T _a =25°C	0.5			0.3				mA
		T _a =100°C	5.0			5.0				

电参数曲线图 / Electrical Characteristic Curve



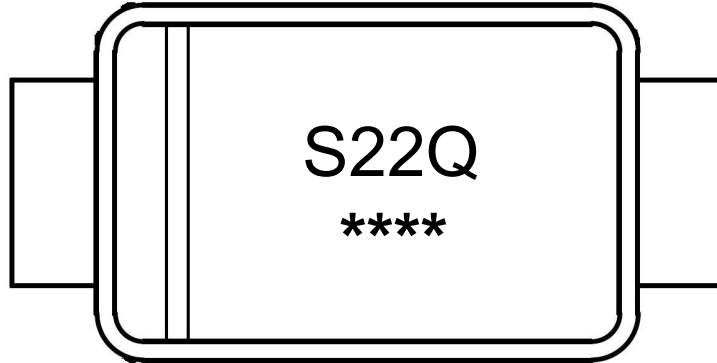
外形尺寸图 / Package Dimensions

SOD-123FL



UNIT		A	C	D	E	e	g	H_E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

印章说明 / Marking Instructions



说明：

S22： 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:

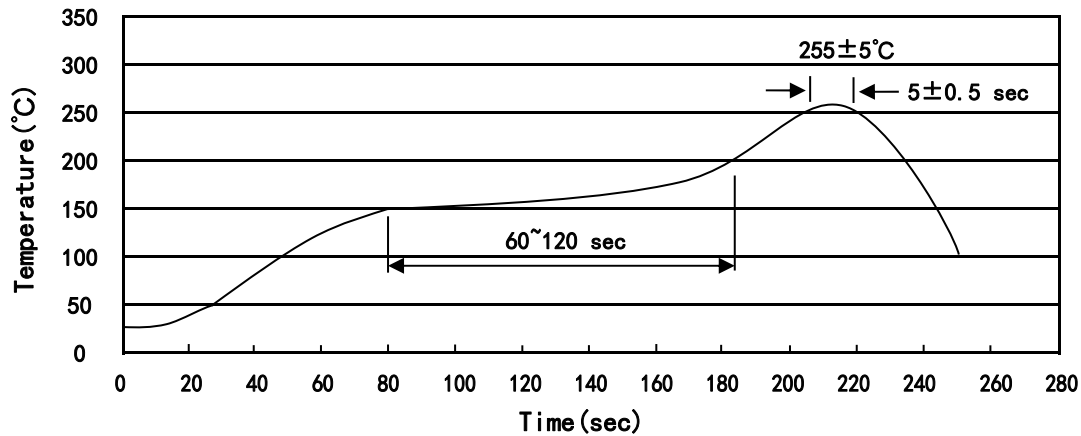
S22： Product Type Code

Q: Automobile halogen-free product Code

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

Marking

Type number	Marking code
BRDS22WQ	S22Q
BRDS24WQ	S24Q
BRDS26WQ	S26Q
BRDS28WQ	S28Q
BRDS210WQ	S210Q
BRDS212WQ	S212Q
BRDS215WQ	S215Q
BRDS220WQ	S220Q

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
SOD-123FL	3,000	8	24,000	6	144,000	7" ×8	185×180×105	390×385×205

使用说明 / Notices