

描述 / Descriptions

超快恢复二极管，反向电压：50V~1000V，正向电流：2.0A，SMA封装。

Surface Mount Ultrafast Recovery Rectifier, Reverse Voltage: 50 to 1000V, Forward Current: 2.0A, SMA thin package.

特征 / Features

玻璃钝化芯片，效率高，无铅符合欧盟 RoHS 指令 2011/65/EU，适用于表面贴装。无卤产品。

Glass Passivated Chip Junction, High efficiency, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications. Halogen free product.

用途 / Applications

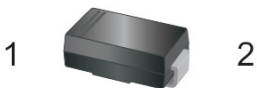
一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

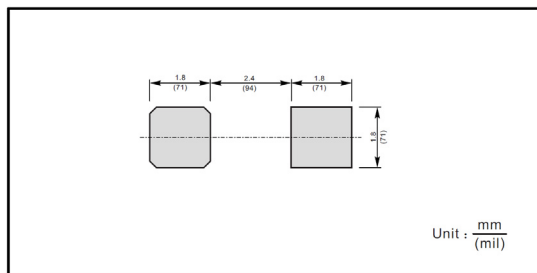


引脚排列 / Pinning



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	参数符号 Symbol	数值 Rating							单位 Unit
		US2A	US2B	US2D	US2G	US2J	US2K	US2M	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T _C = 125℃	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 Thermal Resistance ¹⁾	R _{θJA}	65							℃/W
	R _{θJC}	20							
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150							℃

Note:

1) P.C.B. mounted with 2.0X 2.0" (5 X 5 cm) copper pad areass .

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

参数 Parameter	参数符号 Symbol	测试条件 Test condition	数值 Rating							单位 Unit
			US2A	US2B	US2D	US2G	US2J	US2K	US2M	
Maximum Instantaneous Forward Voltage	V _F	I _F =2.0A	1.0			1.3	1.65		V	
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I _R	T _a =25℃	5.0							uA
		T _a =125℃	100							
Maximum Reverse Recovery Time	t _{rr}	I _F =0.5A I _R =1.0A I _{rr} =0.25A	50				75		ns	

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

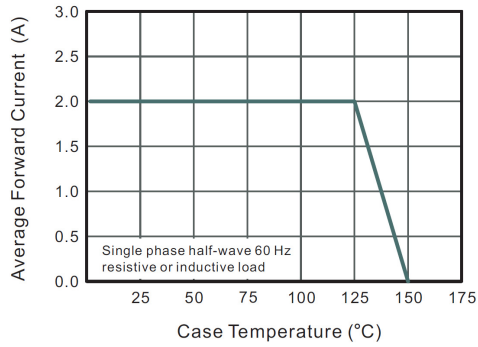


Fig.2 Typical Reverse Characteristics

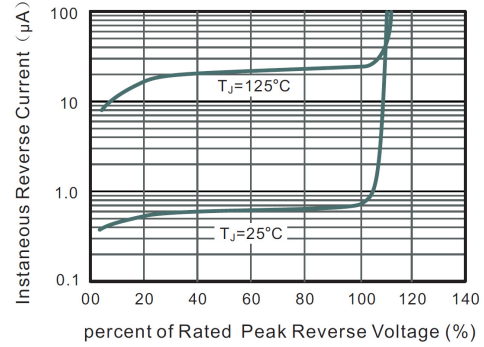


Fig.3 Typical Forward Characteristics

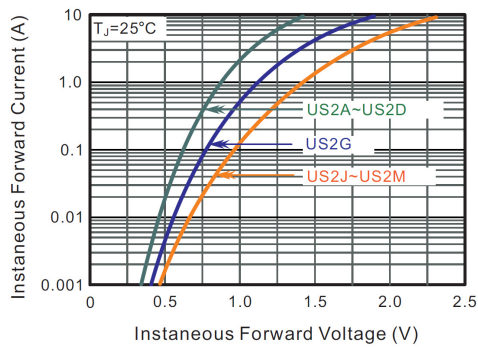
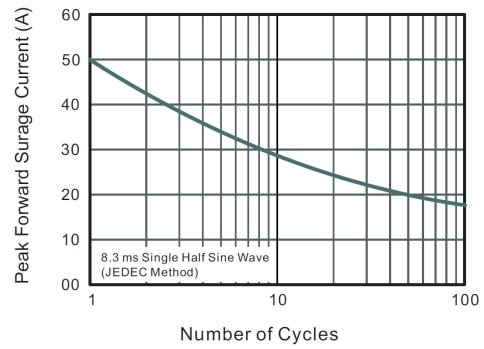
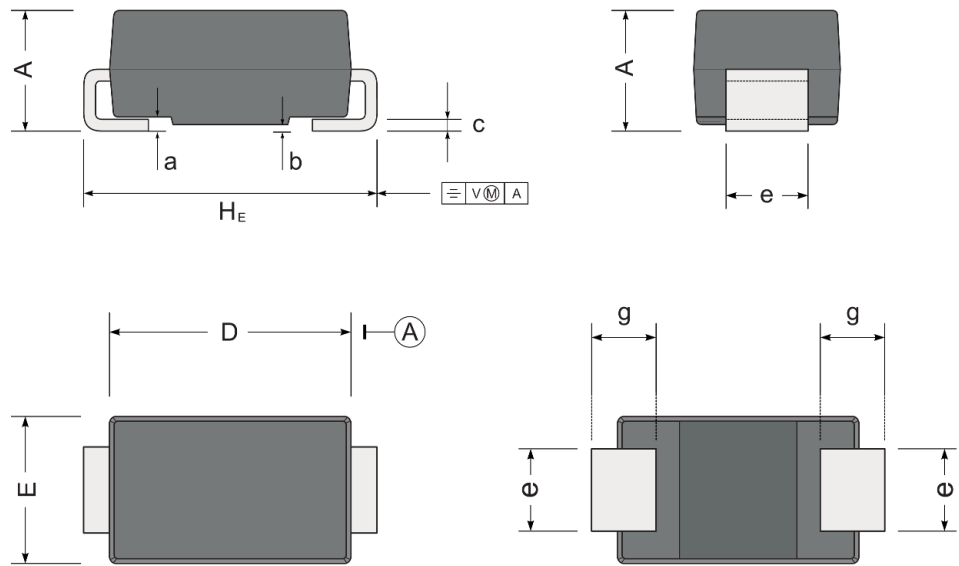


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



外形尺寸图 / Package Dimensions

SMA

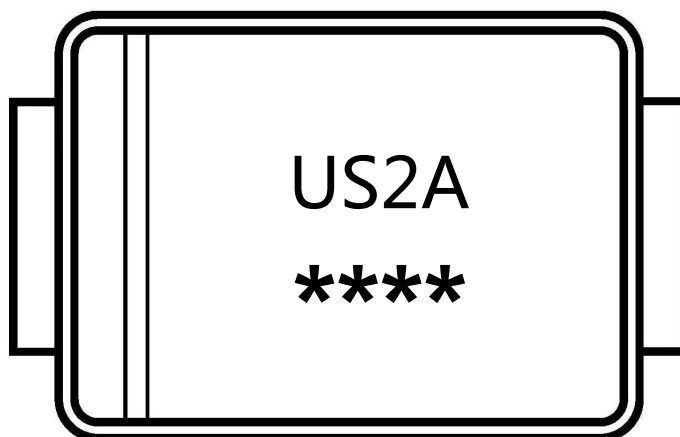


UNIT		A	D	E	H _E	c	e	g	b	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.2	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	0.05	
mil	max	87	181	106	205	12	63	59	7.9	12
	min	75	157	91	185	6	51	35	2	

Marking

Type number	Marking code
US2A	US2A
US2B	US2B
US2D	US2D
US2G	US2G
US2J	US2J
US2K	US2K
US2M	US2M

印章说明 / Marking Instructions



说明：

US2A： 为型号代码

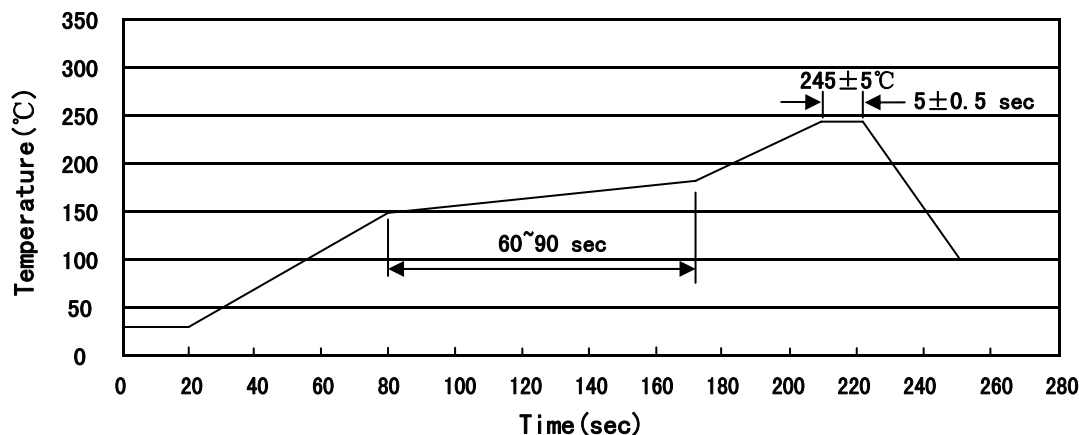
*****： 为生产批号追溯码，第 1 个*为年月代码，后面 3 个*为当月小批号代码

Note:

US2A： Product Type Code

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

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 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±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:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±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	5000	2	10000	7	70000	13" ×12	336X336X40	380X335X366

使用说明 / Notices