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E	2017-11				
F	2019-5-6	1 0 4 0			



/ Descriptions

WX Y Z [\] ^ _ ` a b c 50V~1000V ^ d ` a D c 1.0A ^ e f SMAF ; < U
Surface Mount Ultrafast Recovery Rectifier, Reverse Voltage: 50 to 1000V, Forward Current: 1.0A,
SMAF thin package.

/ Features

g h i j k l ^ m n o ^ p q r s 2011/65/EU t u RoHS v w ^ x y z { | } < ^ p ~ i ¢ U
Glass Passivated Chip Junction High efficiency Lead free in comply with EU R HS 2011/65/EU
directives For surface mounted applications, Halogen free product.

/ Applications

£ ¢ y ¥.
General purpose.

/ Equivalent Circuit



/ Pinning



The recommended mounting pad size



/ Marking

| A B § " U See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

参数 Parameter	参数符号 Symbol	数值 Rating							单位 Unit
		US1AF	US1BF	US1DF	US1GF	US1JF	US1KF	US1MF	
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 Ta = 65℃ Peak Forward Surge Current 8.3 ms Singx	$I_F (AV)$	1.0							A

Note:

- 1) Measured at 1 MHz and applied reverse voltage of 4 V D.C.
- 2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

参数 Parameter	参数符号 Symbol	测试条件 Test condition	数值 Rating							单位 Unit
			US1AF	US1BF	US1DF	US1GF	US1JF	US1KF	US1MF	
Maximum Instantaneous Forward Voltage	V _F	I _F =1.0A	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 ⁽¹⁾	T _{rr}	I _F =0.5A I _R =1.0A I _{rr} =0.25A	50				75			ns

/ Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

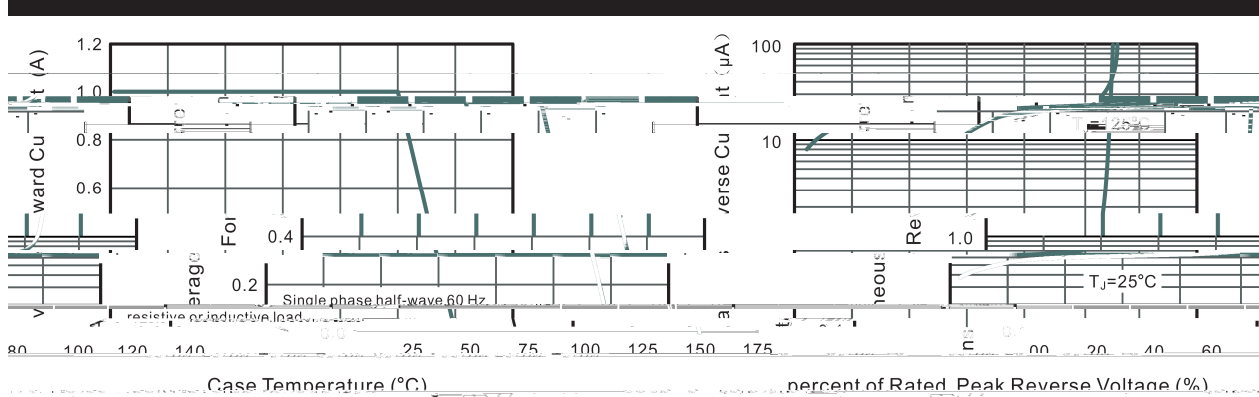


Fig.2 Typical Reverse Characteristics

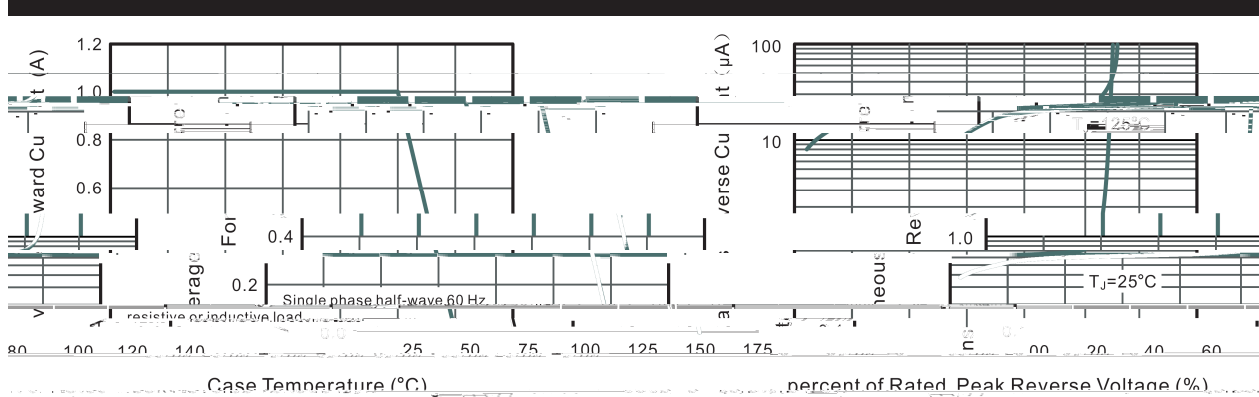


Fig.3 Typical Forward Characteristics

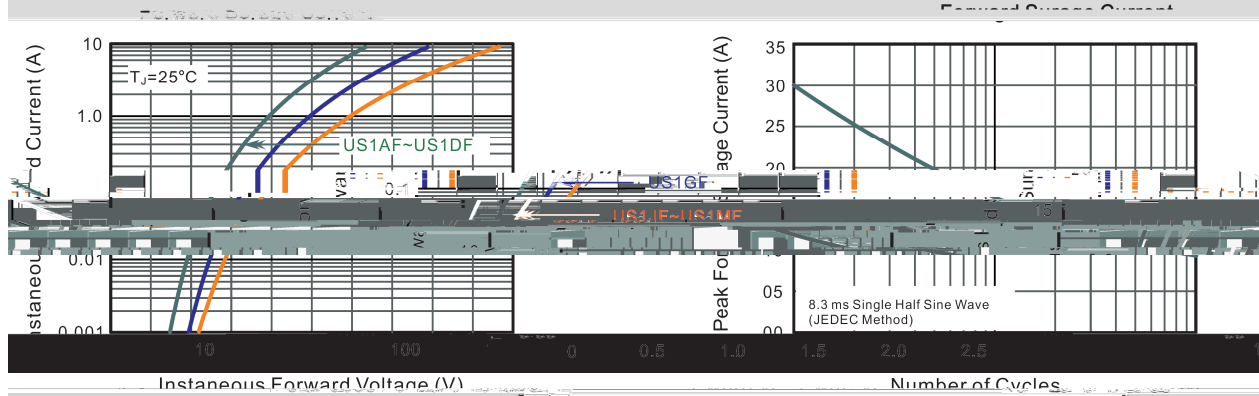


Fig.4 Maximum Non-Destructive Reverse Current

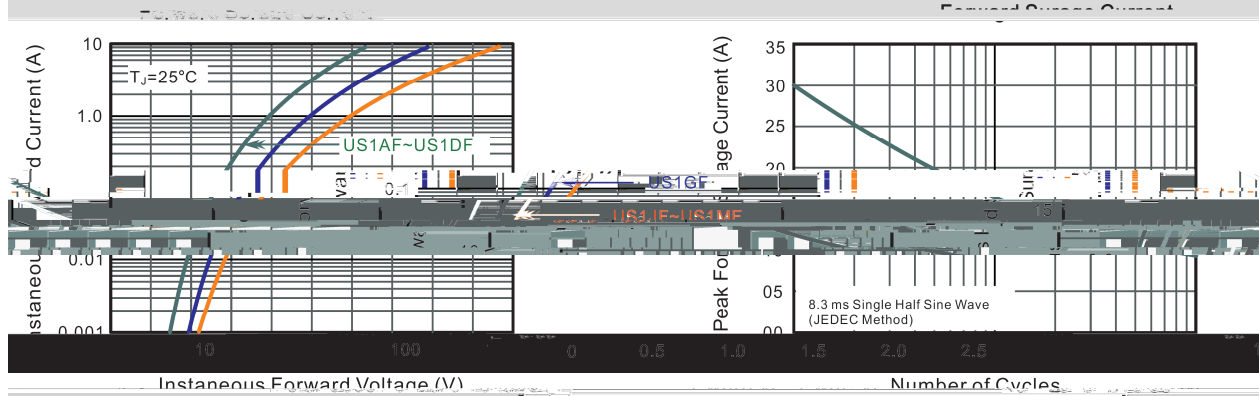
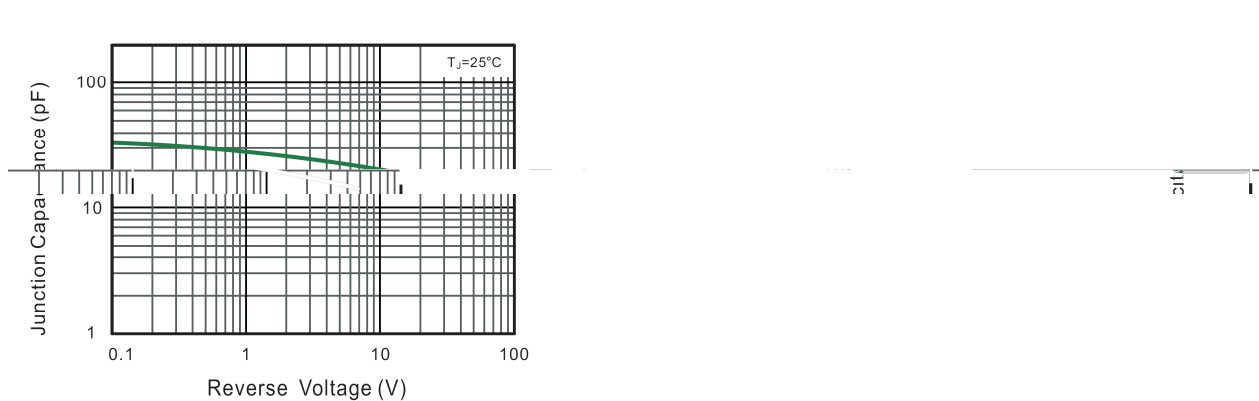
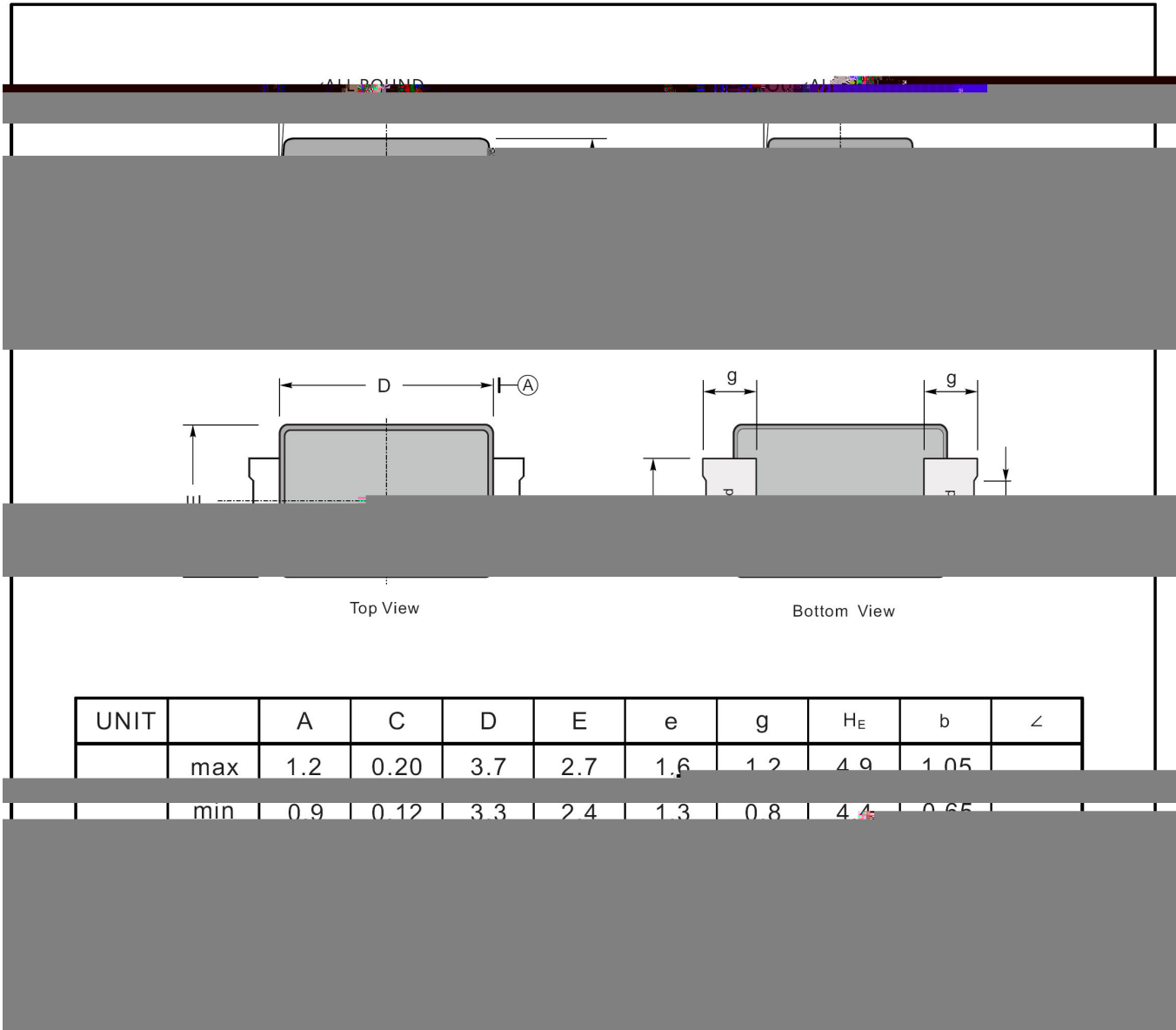


Fig.5 Typical Junction Capacitance



/ Package Dimensions

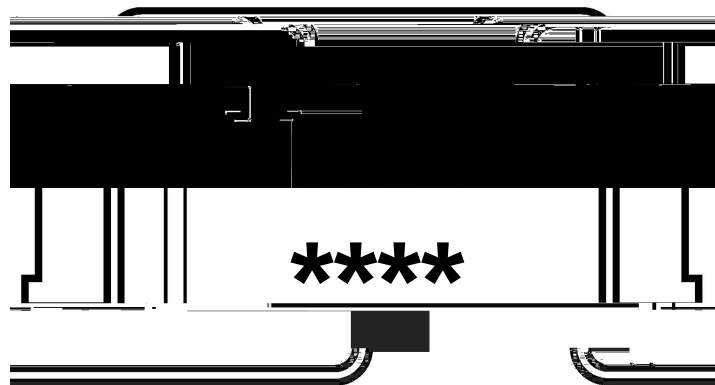


US1AF~US1MF

Rev.G Nov.-2020

DATA SHEET

/ Marking Instructions



US1A

1 *

3 *

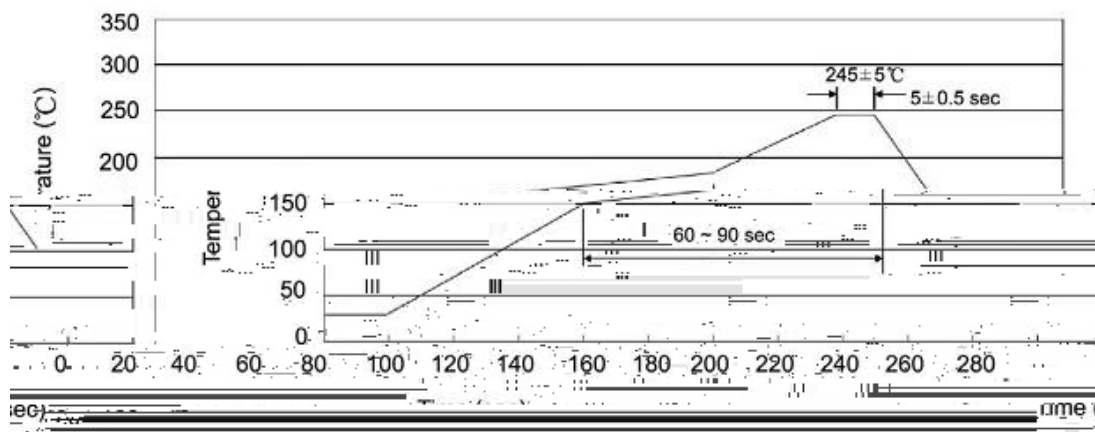
Note:

US1A Product Type Code

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



() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|--|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180°C, Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | | 2 | 10°C/sec. | | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5°C 10±1 sec. Temp.:260±5°C Time:10±1 sec

/ Packaging SPEC.

/ 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
SMAF	3000	5	15000	5	75000	7" ×12	185X180X105	390X385X205

/ Notices