

**/ Descriptions**

50V ~ 1000V      2.0A      SMAF

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

**/ Features**

RoHS      2011/65/EU

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**

General purpose.

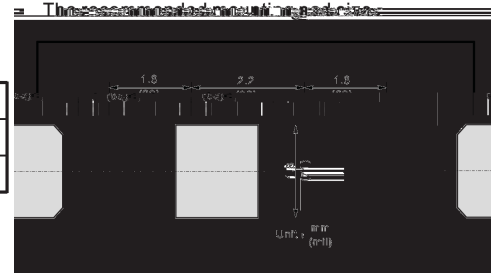
**/ Equivalent Circuit**



**/ Pinning**



PIN	DESCRIPTION
1	Cathode
2	Anode



**/ Marking**

See Marking Instructions.

**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating							Unit
		US2AF	US2BF	US2DF	US2GF	US2JF	US2KF	US2MF	
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	$I_{F AV}$	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 <sup>1)</sup>	$R_{JA}$	75							/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150							

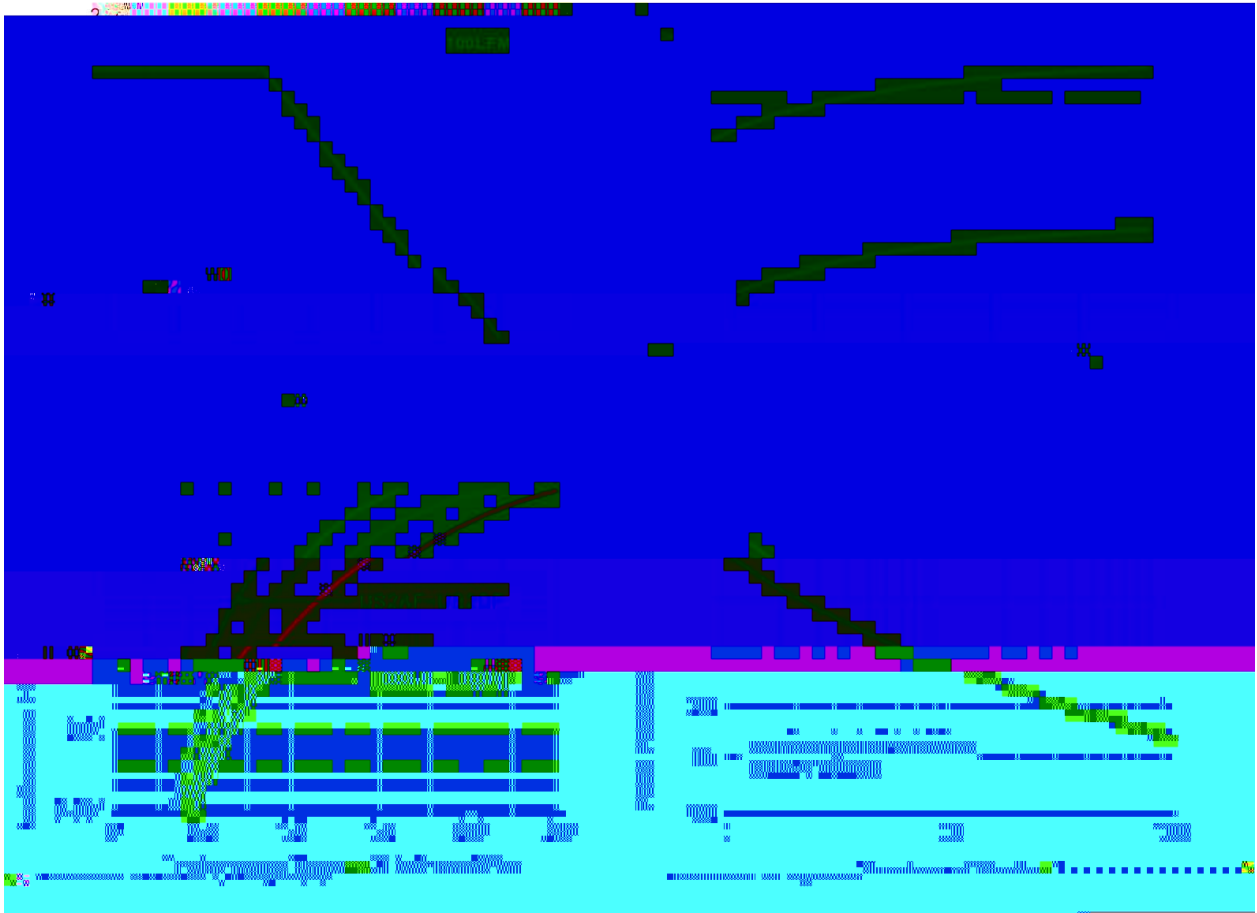
Note:

1) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas .

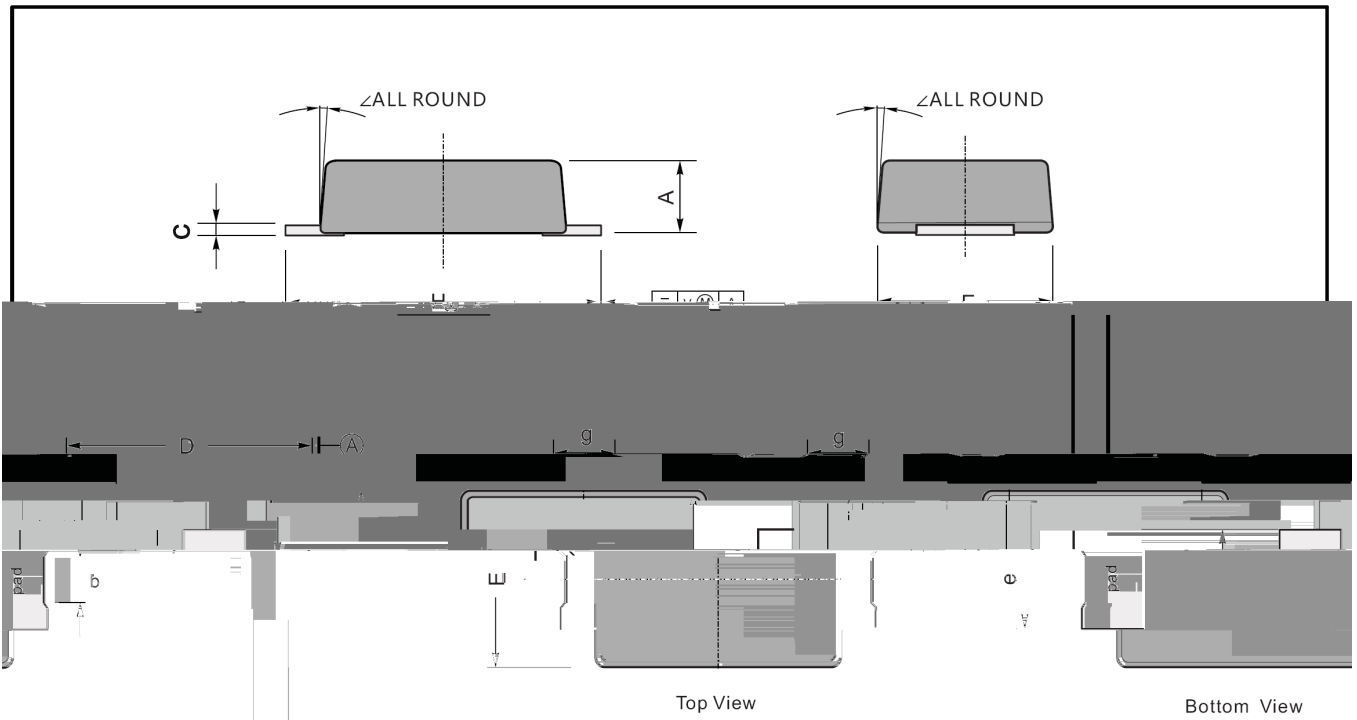
**/ Electrical Characteristics(Ta=25 )**




Parameter	Symbol	Test condition	Rating						Unit
			US2AF	US2BF	US2DF	US2GF	US2JF	US2KF	
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	

/ Electrical Characteristic Curve



/ Package Dimensions



b		∠		UNIT		A	C	D	E	e	g	H <sub>E</sub>	
0.5				max		1.2	0.20	3.7	2.7	1.6	1.2	4.9	
3.3	2.4	1.3	0.8	4.4	0.65	7°				min	0.9	0.12	
46	106	63	47	193	41					max	47	7.9	1
3.3	2.4	1.3	0.8	4.4	0.65					min	1.6	0.12	1

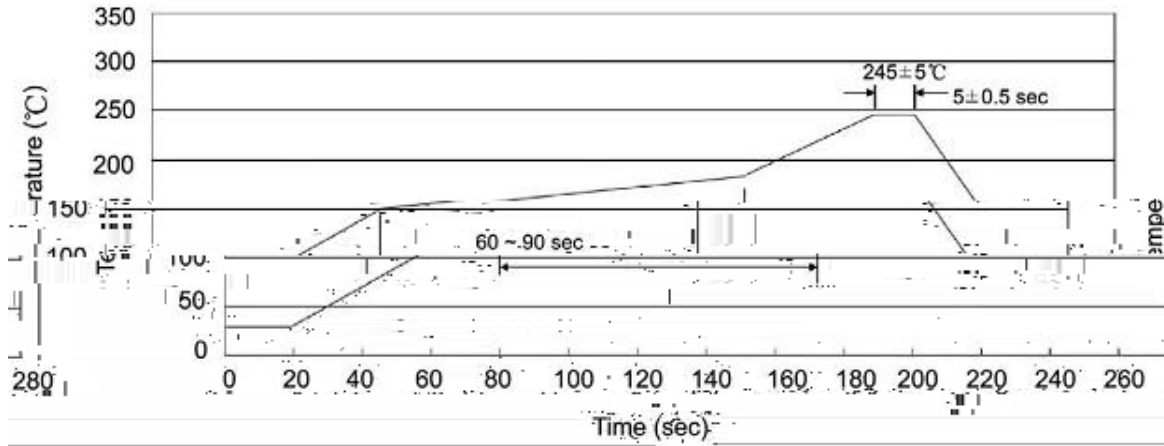
/ Marking Instructions

# Marking

Type number	Marking code
US2AF	US2A
US2BF	US2B
US2DF	US2D
US2GF	US2G
US2JF	US2J
US2KF	US2K
US2MF	US2M



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



Note:

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

/ Resistance to Soldering Heat Test Conditions

260±5                      10±1 sec.                      Temp.:260±5                      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 <sup>3</sup> )		
	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 x11	185X180X105	390X385X205

/ Notices