

# US2AF-AT THRU US2MF-AT

## SURFACE ULTRAFAST RECOVERY RECTIFIERS

Forward Current-2A

Reverse Voltage-50V to 1000V

### FEATURES

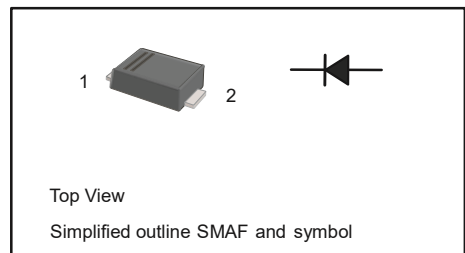
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Low profile package
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- ◆ Case: SMAF molded plastic body
- ◆ Terminals: Solderable per MIL-STD- 750, Method 2026
- ◆ Weight: Approximated 0.027 grams

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

PARAMETER	SYMBOL	US2AF -AT	US2BF -AT	US2DF -AT	US2GF -AT	US2JF -AT	US2KF -AT	US2MF -AT	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T <sub>C</sub> =125°C	I <sub>F(AV)</sub>	2							A
Peak Forward Surge Current(Note1)	I <sub>FSM</sub>	50							A
Maximum Forward Voltage at 2.0 A	V <sub>F</sub>	1.0			1.3	1.65			V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	5 100							uA
Maximum Reverse Recovery Time (Note2)	T <sub>rr</sub>	50				75			nS
Typical Thermal Resistance (Note3)	R <sub>θJA</sub> R <sub>θJC</sub>	65 20							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured at with  $I_F=0.5\text{A}$ ,  $I_{rr}=0.25\text{A}$ .

3. P.C.B. mounted with 2.0" X 2.0" (5cm X 5 cm) copper pad areas.

Dated: 03/2016

Rev:1.0

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## RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

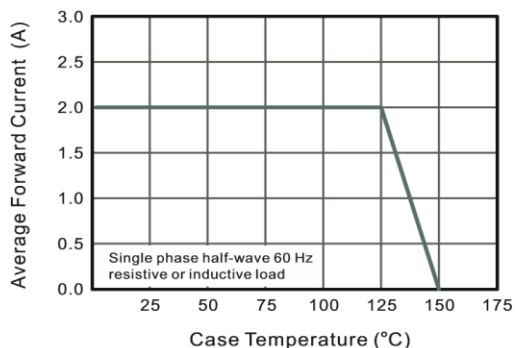


Fig.2 Typical Reverse Characteristics

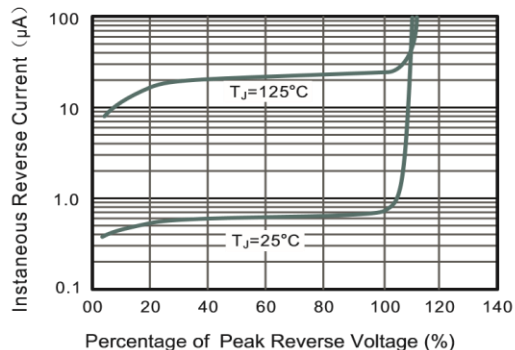


Fig.3 Typical Forward Characteristics

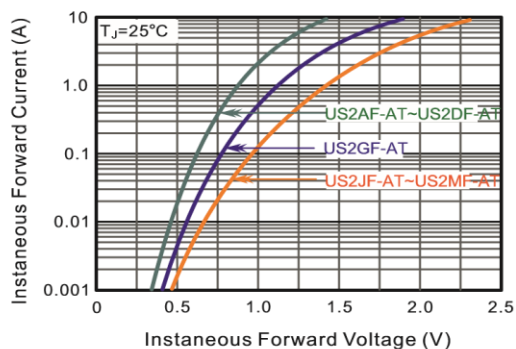
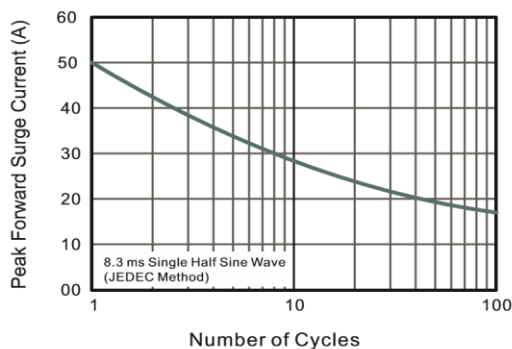


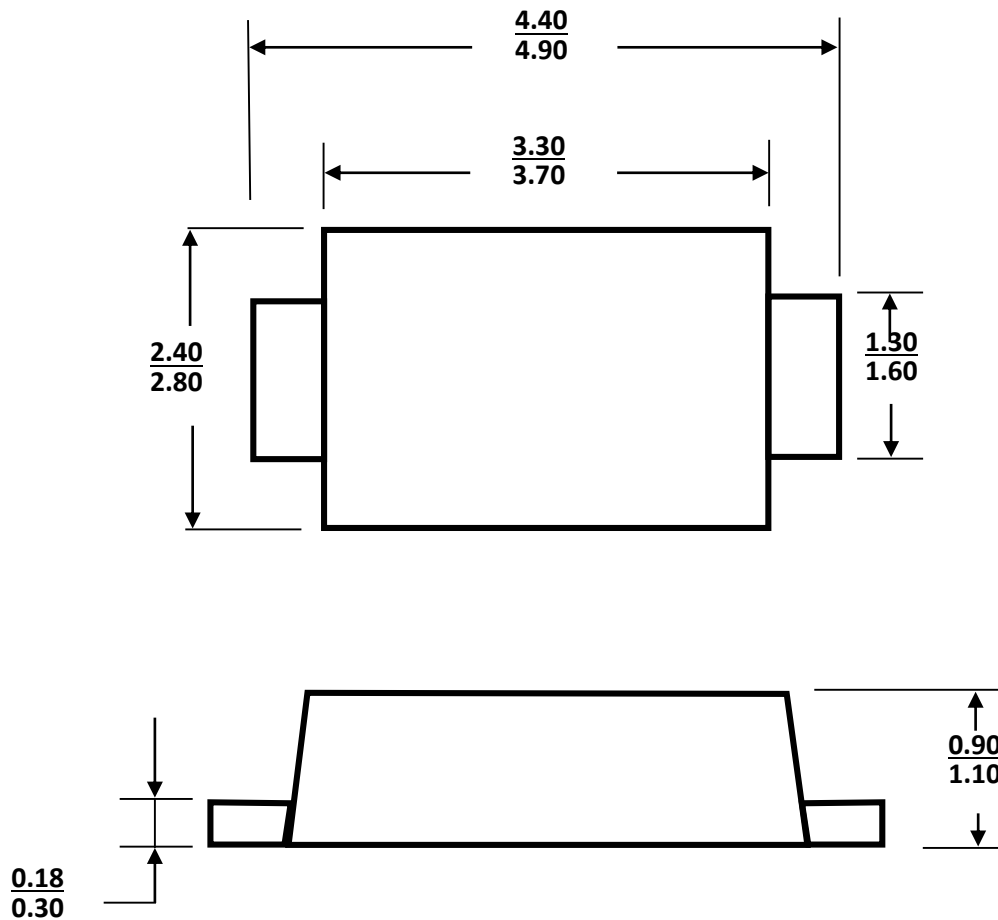
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



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## PACKAGE OUTLINE

### SMAF



Dimensions in millimeters

### ORDERING INFORMATION

Device	Package	Shipping
US2AF-AT thru US2MF-AT	SMAF	3,000/Tape & Reel (7 inches)
		10,000/ Tape & Reel (13 inches)

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