

US3AF~US3MF

ROHS

Surface Mount Fast Recovery Rectifiers

Features

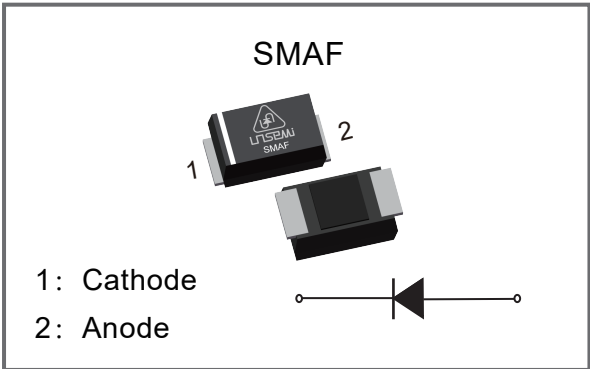
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass passivated chip junction
- ◆ Easy to pick and place
- ◆ Fast reverse recovery time
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- ◆ Case: SMAF
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Approx. Weight : 27mg/0.00095oz
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026



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Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter		Symbol	US3AF	US3BF	US3DF	US3GF	US3JF	US3KF	US3MF	Units
Maximum Repetitive Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc=125°C		IF(AV)	3.0							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		IFSM	80							A
Max Instantaneous Forward Voltage at 3A		VF	1.0			1.3	1.68			V
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25°C	IR	5.0							μA
	Ta=125°C	IR	100							
Maximum Reverse Recovery Time ⁽¹⁾		Trr	50				75			nS
Typical Thermal Resistance ⁽²⁾		RθJA	50							°C/W
		RθJC	16							
Operating and Storage Temperature Range		TJ,Tstg	-55 ~ +150							°C

Note:(1) Measured with IF=0.5A, IR=1A, Irr=0.25A.

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

Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

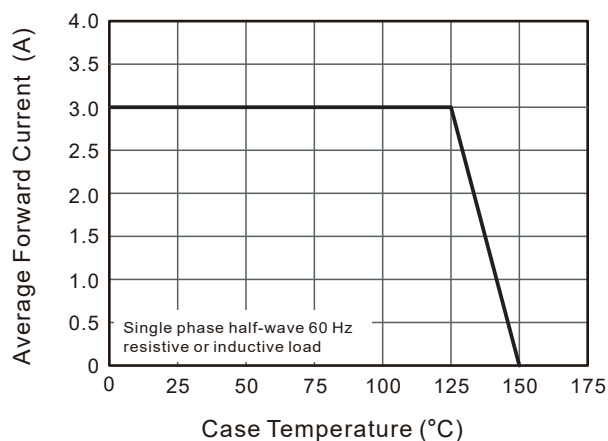


Fig. 2 Typical Reverse Characteristics

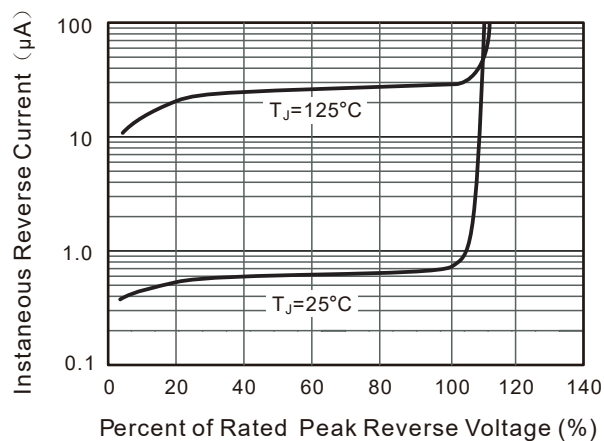


Fig.3 Typical Forward Characteristic

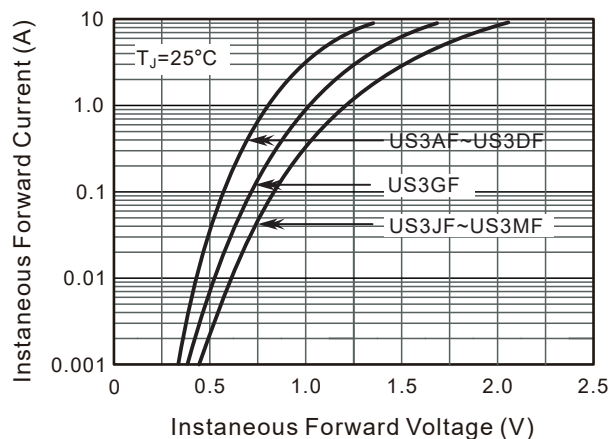
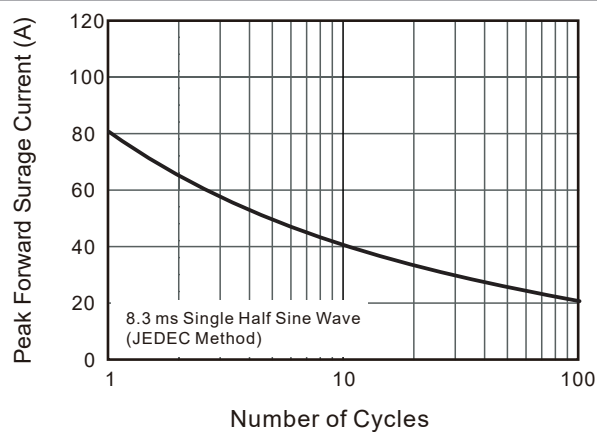
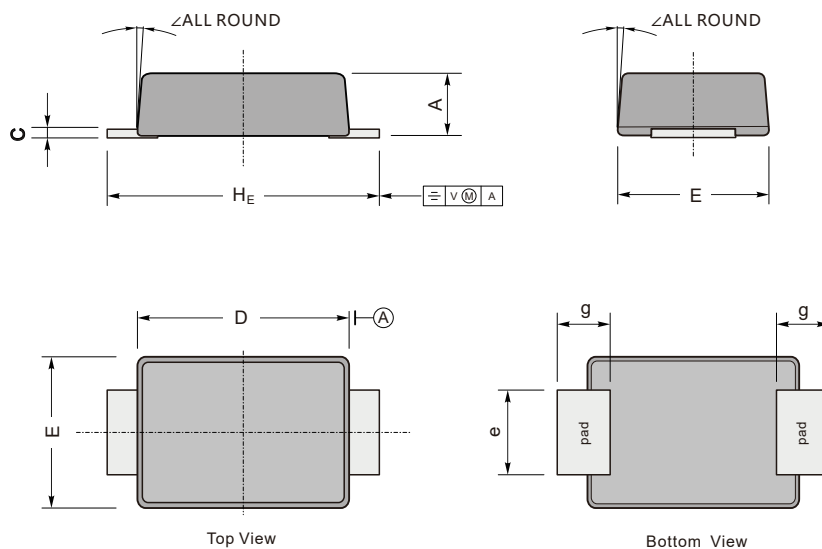


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Package Outline & Dimensions



UNIT		A	C	D	E	e	g	HE	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

Marking

Type Number	US3AF	US3BF	US3DF	US3GF	US3JF	US3KF	US3MF
Making	US3A	US3B	US3D	US3G	RS3J	US3K	US3M

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