



DESCRIPTION

The US1AF~US1MF are available in SMAF package

ORDERING INFORMATION

Package Type	Part Number
SMAF	US1AF
	US1BF
	US1DF
	US1GF
	US1JF
	US1KF
	US1MF
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High efficiency
- Fast reverse recovery time
- Available in SMAF package

MECHANICAL DATA

Case: SMAF

Terminals: Solderable per MIL-STD-750,
Method 2026

Approx. Weight: 27mg 0.00086oz



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 derate by 20 %.

Parameter	Symbol	US1AF	US1BF	US1DF	US1GF	US1JF	US1KF	US1MF	Unit
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	600	100	V
Maximum Average Forward Rectified Current at $T_A=65^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25							A
Maximum Instantaneous Forward Voltage at 1A	V_F	1.0			1.4	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R				5.0	100			μA
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R				5.0	100			μA
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R				100				μA
Maximum Reverse Recovery Time ^{NOTE1}	t_{rr}	50				75			ns
Typical Thermal Resistance	$R_{\theta JA}$	180							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~150							$^\circ\text{C}$

NOTE1: Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$



TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

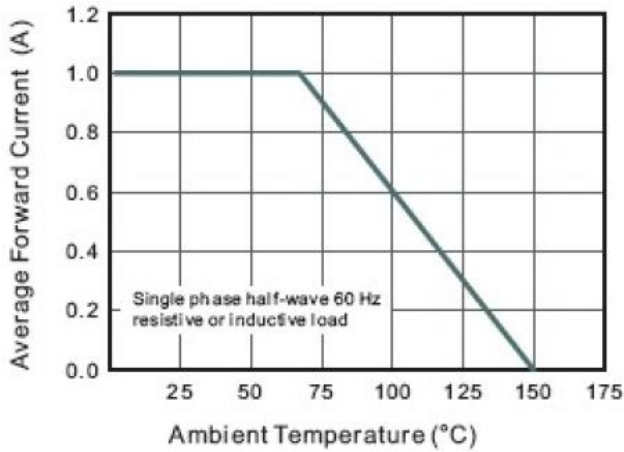


Figure. 2 Typical Reverse Characteristics

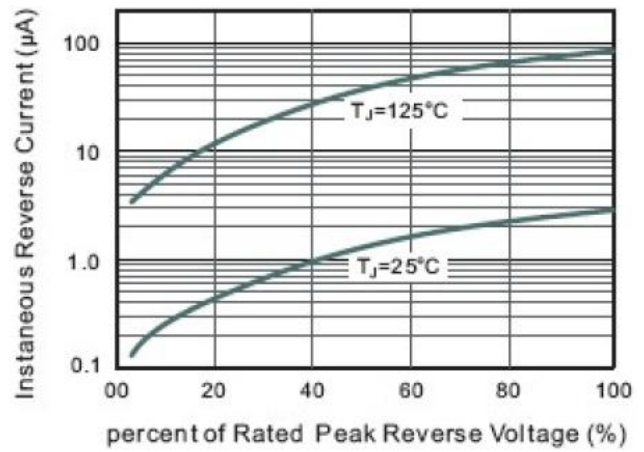


Figure. 3 Typical Instantaneous Forward Characteristics

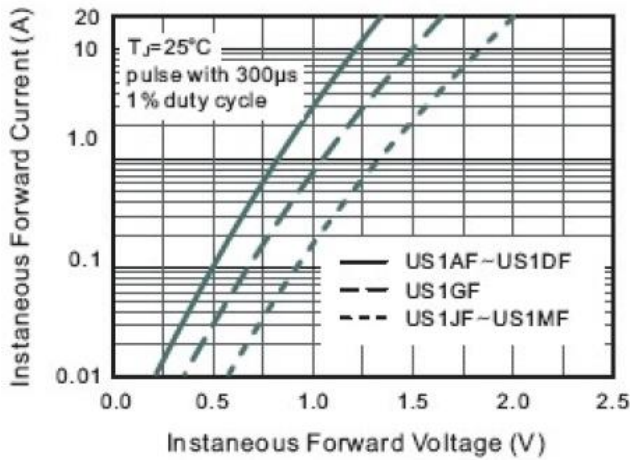
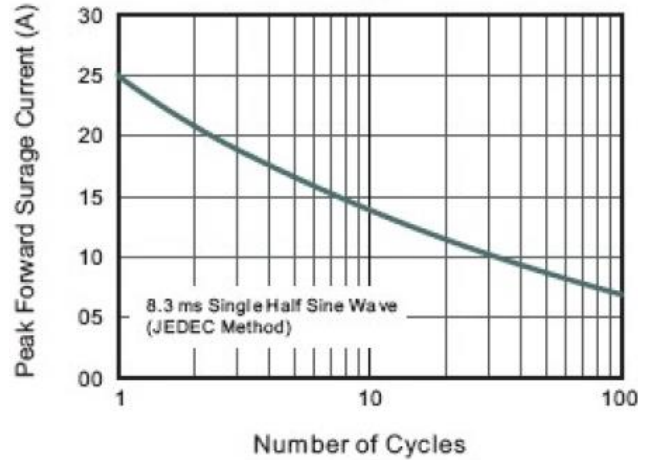


Figure. 4 Maximum Non-Repetitive Peak Forward Surge Current

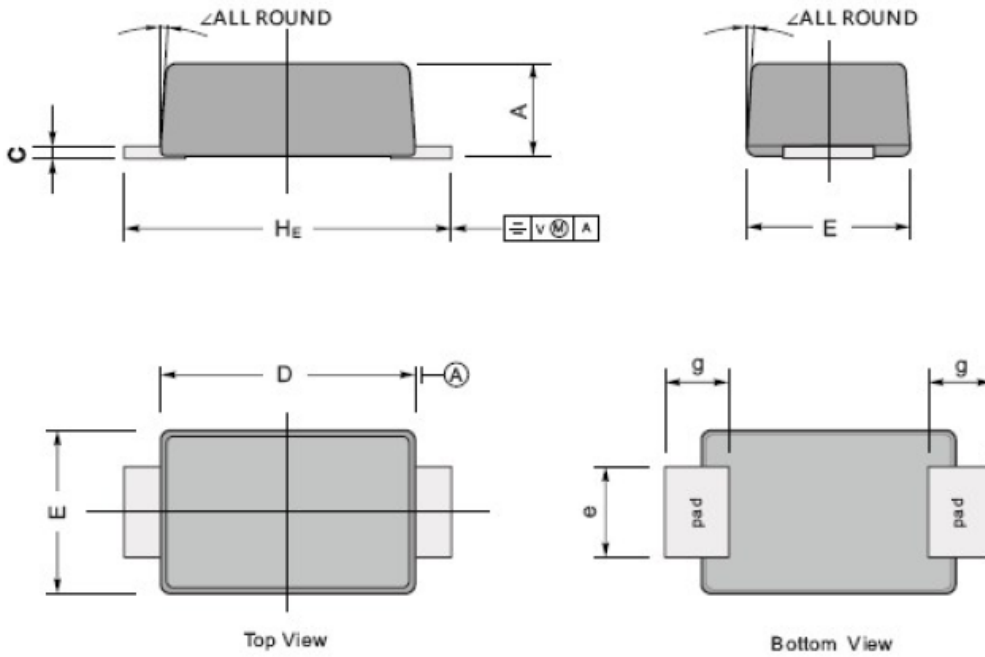




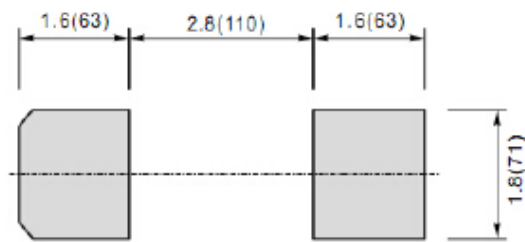
PACKAGE INFORMATION

Dimension in SMAF (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit: mm(mil)

UNIT		A	C	D	E	e	g	H _E	∠
mm	Max	1.3	0.23	3.7	2.7	1.6	1.3	4.9	7°
	Min	1.1	0.18	3.3	2.4	1.3	1.0	4.4	
mil	Max	51	9.1	146	106	63	51	193	
	Min	43	7.1	130	94	51	39	173	



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