



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°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	T _A =25°C T _A =125°C	I _R	5.0 100							μA
Maximum Reverse Recovery Time ^{NOTE1}		t _{rr}	50				75			ns
Typical Thermal Resistance		R _{θJA}	180							°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55 ~150							°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

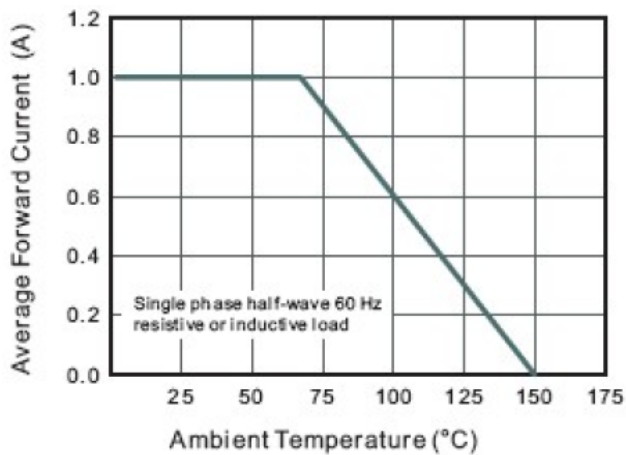


Figure. 2 Typical Reverse Characteristics

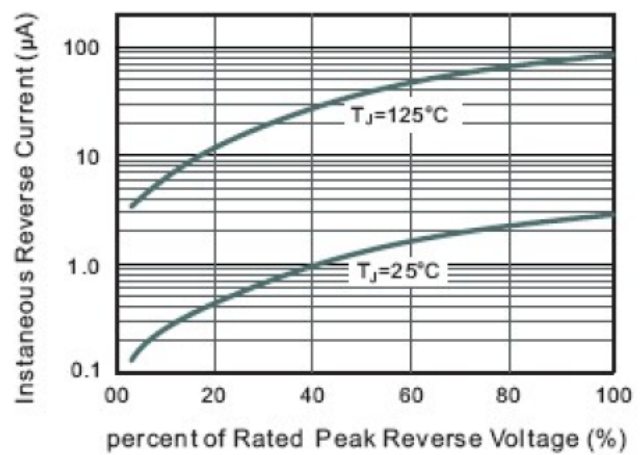


Figure. 3 Typical Instantaneous Forward Characteristics

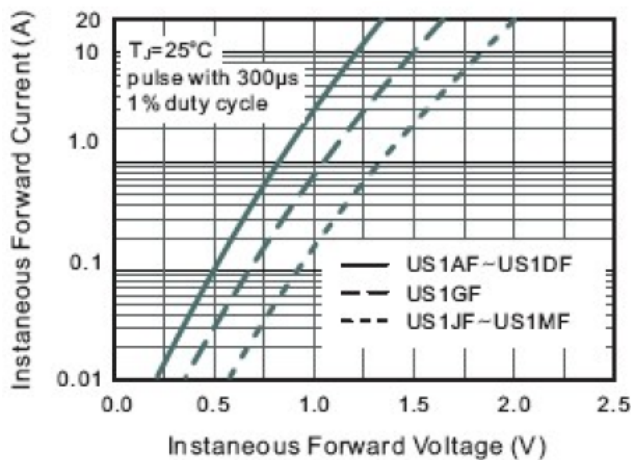
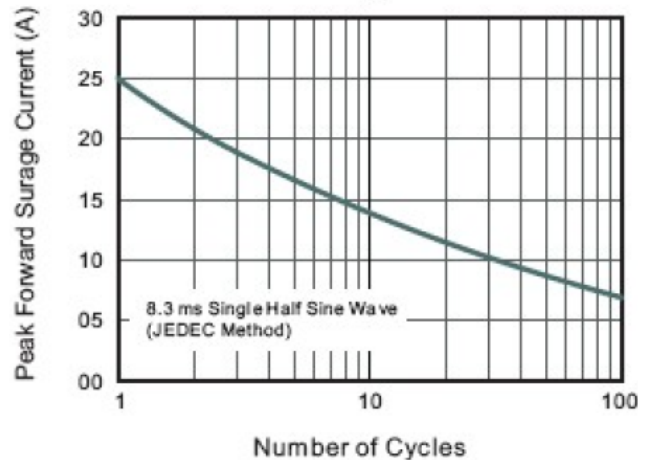


Figure. 4 Maximum Non-Repetitive Peak Forward Surge Current

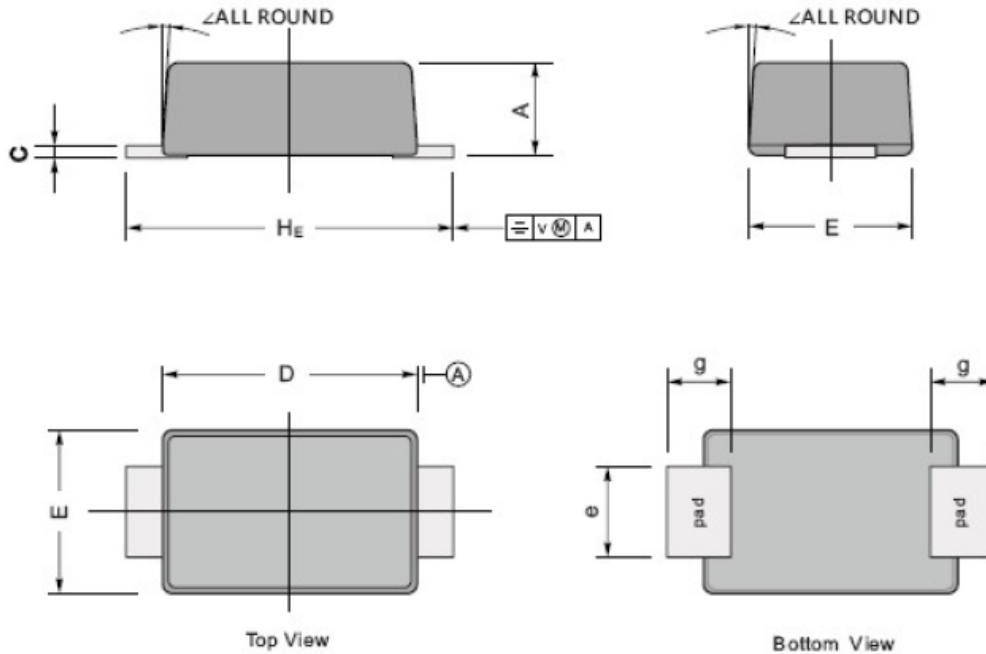




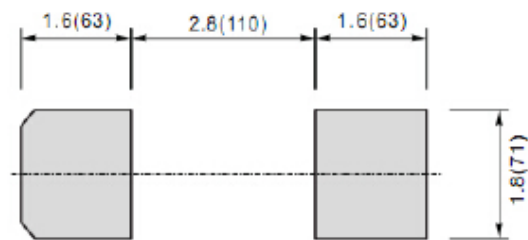
PACKAGE INFORMATION

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	\angle
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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