



DESCRIPTION

The ES2AF_ES2JF are available in SMAF package.

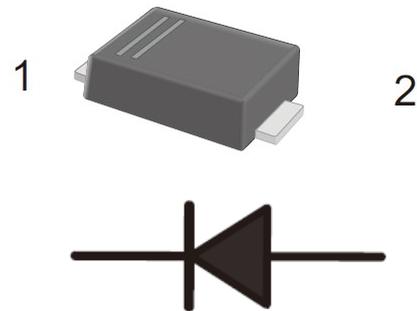
FEATURE

- For Surface Mounted Applications
- Low Profile Package
- Glass Passivated Chip Junction
- Superfast Reverse Recovery Time

MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg / 0.00086oz

PIN DESCRIPTION



ORDERING INFORMATION

Package Type	Part Number
SMAF	ES2AF
	ES2BF
	ES2CF
	ES2DF
	ES2EF
	ES2GF
	ES2JF
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN#	DESCRIPTION
1	CATHODE
2	ANODE

**ABSOLUTE 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 %.

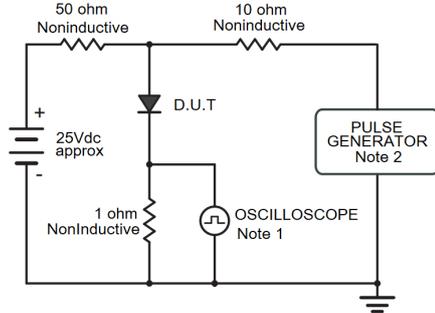
Parameter	Symbol	ES2AF	ES2BF	ES2CF	ES2DF	ES2EF	ES2GE	ES2JF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Forward Voltage at 2A	V_F	1	1	1	1	1.25	1.25	1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5							μA
	$T_A = 125^\circ\text{C}$	100							
Typical Junction Capacitance at $V_R=4\text{V}$, $f=1\text{MHz}$	C_j	60							pF
Maximum Reverse Recovery Time at $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$	t_{rr}	35							ns
Operating Temperature Range	T_j	-55 ~ +150							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150							$^\circ\text{C}$

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



TYPICAL PERFORMANCE CHARACTERISTICS

Fig1. Reverse Recovery Time Characteristic and Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1 megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.

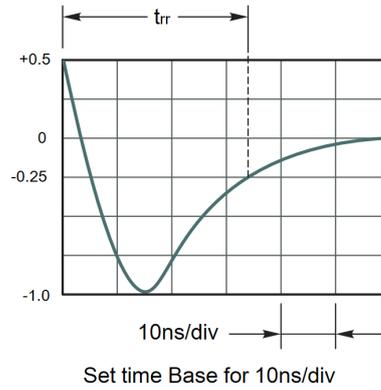


Fig2. Maximum Average Forward Current Rating

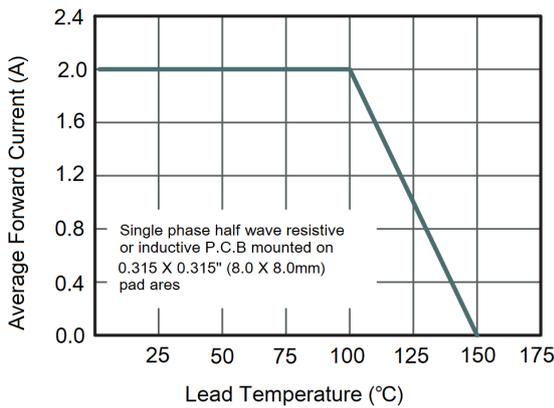


Fig3. Typical Reverse Characteristics

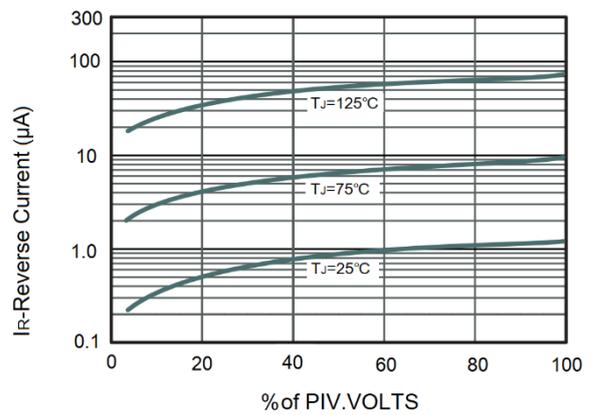


Fig4. Typical Forward Characteristics

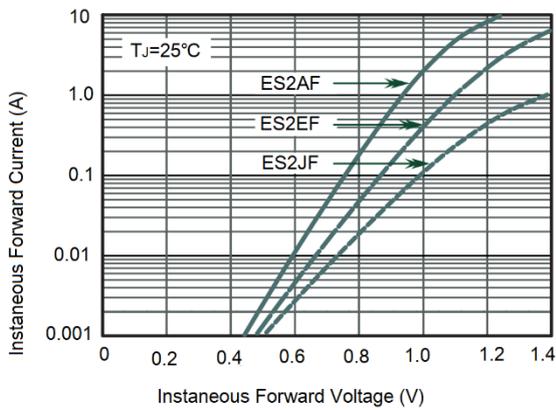
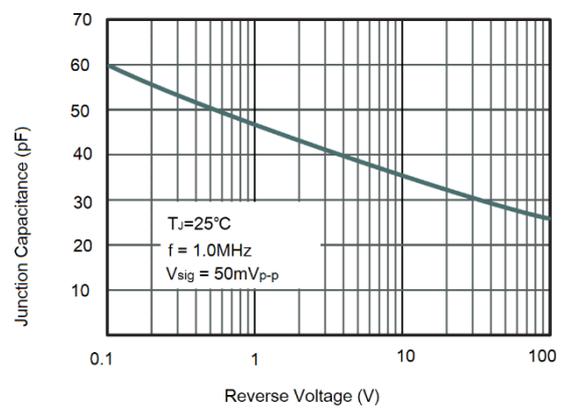


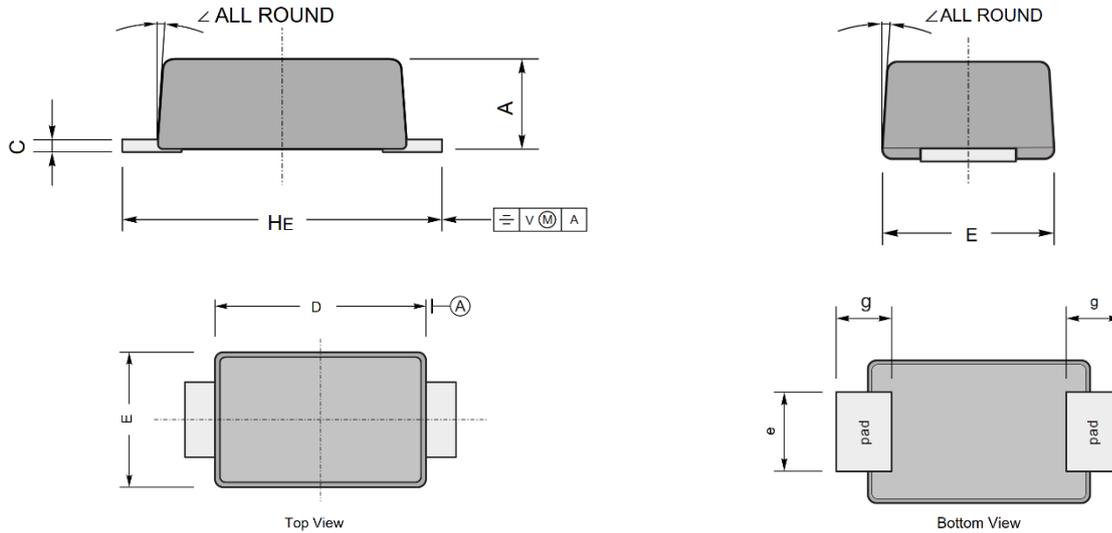
Fig5. Typical Junction Capacitance



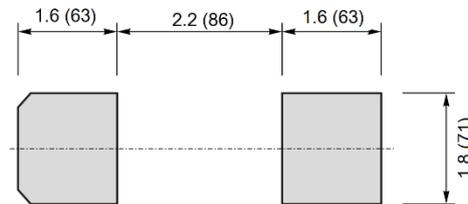


PACKAGE INFORMATION

Dimension in SMAF Package (Unit: mm)



The recommended mounting pad size



SYMBOL	MIN	MAX
A	0.900	1.100
C	0.120	0.200
D	3.300	3.700
E	2.400	2.700
e	1.300	1.600
g	0.800	1.200
HE	4.400	4.900
∠	7°	



IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc. integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or server property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.