DESCRIPTION

The SS22F_SS220F are available in SMAF package.

FEATURE

- Metal Silicon Junction, Majority Carrier Conduction
- For Surface Mounted Applications
- Low Power Loss, High Efficiency
- High Forward Surge Current Capability
- For use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg / 0.00095oz

ORDERING INFORMATION

Package Type	Part Number
SMAF	SS22F
	SS24F
	SS26F
	SS28F
	SS210F
	SS212F
	SS215F
	SS220F
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION

SMAF

PIN#	DESCRIPTION
1	CATHODE
2	ANODE

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase, half wave ,60Hz, resistive or inductive load, for capacitive load, derate by 20 %.

Parameter		Symbol	SS22F	SS24F	SS26F	SS28F	SS210F	SS212F	SS215F	SS220F	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage		V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage		V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	2								A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	50	50	50	50	40	40	40	40	A
Maximum Instantaneous Forward Voltage at 2A		V_F	0.55	0.55	0.70	0.70	0.85	0.85	0.95	0.95	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage	T_A=25℃	I_R	0.50	0.50	0.50	0.30	0.30	0.30	0.30	0.30	mA
	T_A=100℃		5	5	5	3	3	3	3	3	
Typical Junction Capacitance (1)		C_J	160	160	80	80	80	80	80	80	pF
Typical Thermal Resistance (2)		$R_{\theta JA}$	80								℃/W
Operating Junction Temperature Range		T_J	-55 ~ + 150								℃
Storage Temperature Range		T_{STG}	-55 ~ + 150								℃

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.

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Current Derating Curve

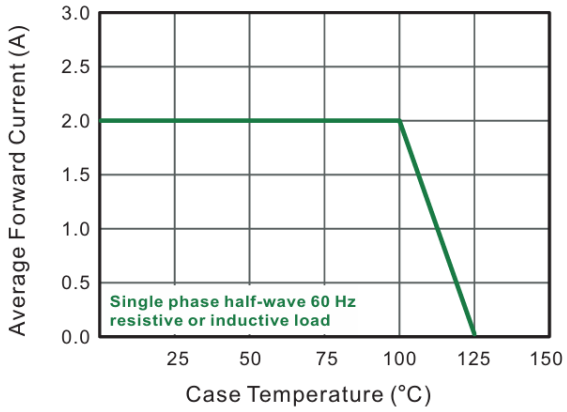


Fig 2. Typical Reverse Characteristics

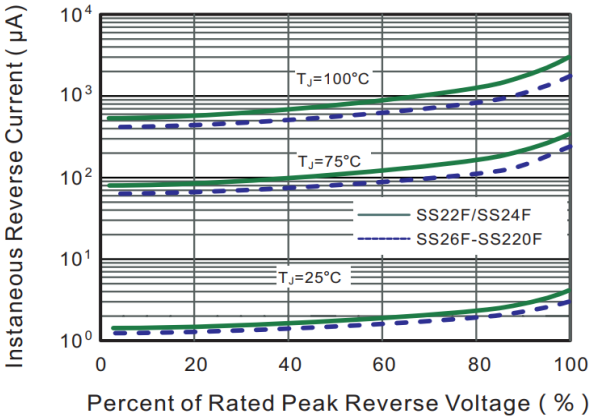


Fig 3. Typical Forward Characteristics

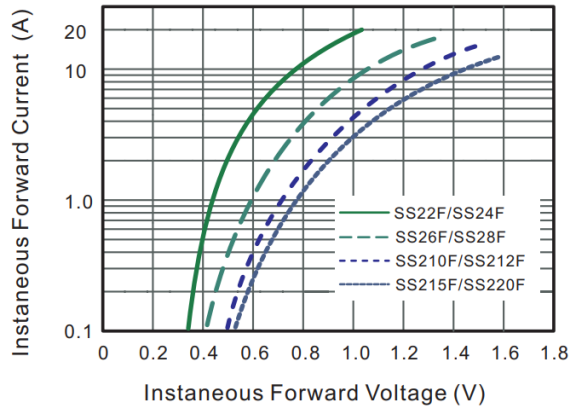


Fig 4. Typical Junction Capacitance

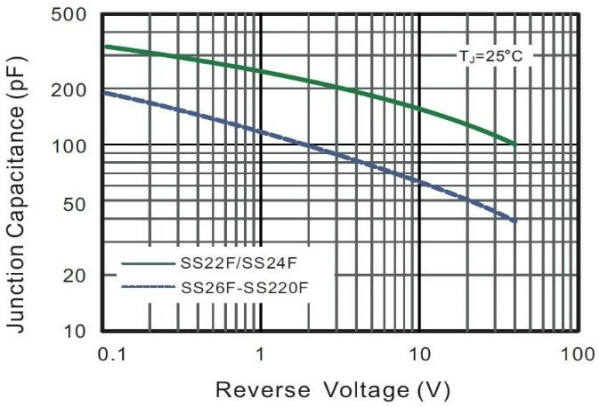


Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

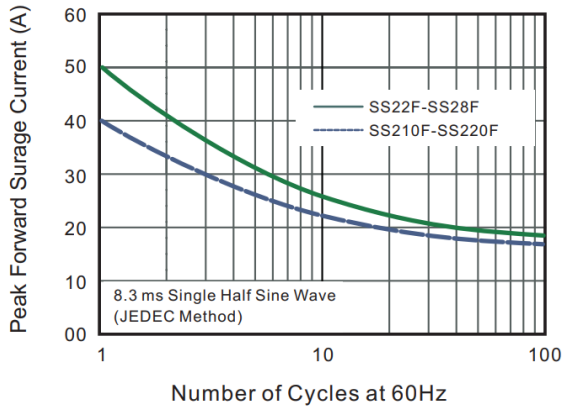
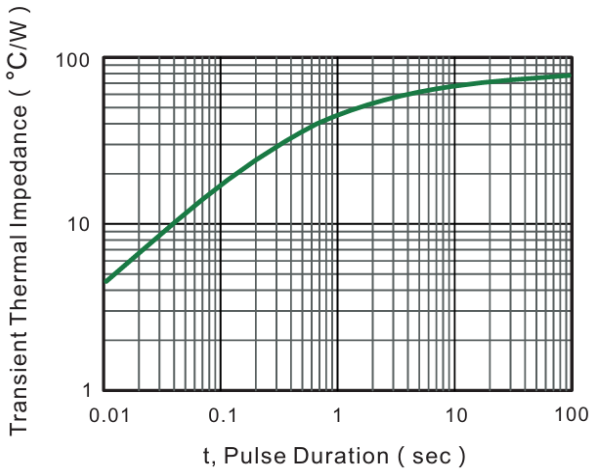
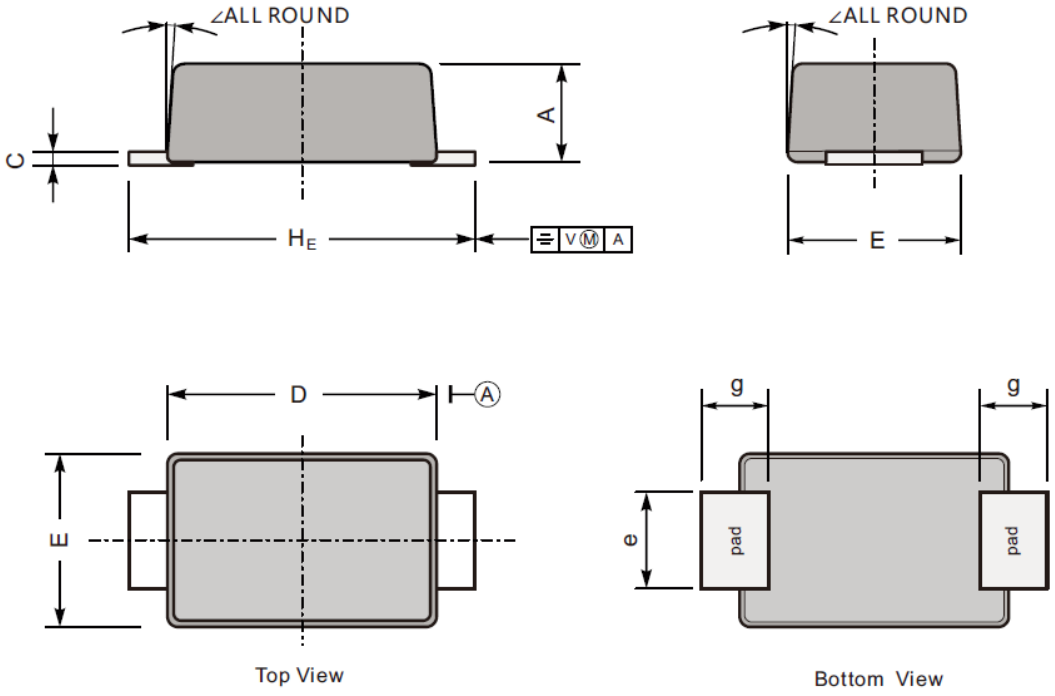


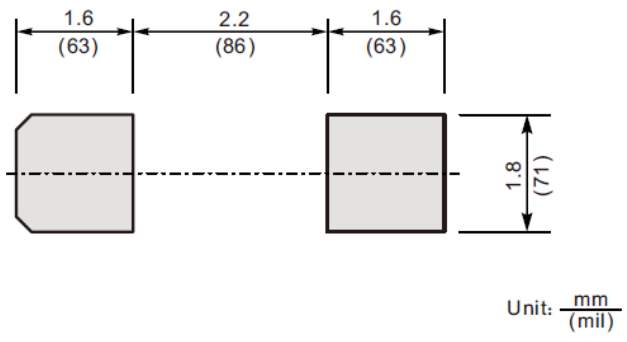
Fig 6. Typical Transient Thermal Impedance



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
H_E	4.400	4.900
∠	7°	

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