DESCRIPTION

The SS32F_SS320F are available in SMAF package.

FEATURE

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability

MECHANICAL DATA

- Case: JEDEC SMAF molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight:0.0018 ounce, 0.064 grams

ORDERING INFORMATION

Package Type	Part Number
SMAF	SS32F
	SS33F
	SS34F
	SS35F
	SS36F
	SS38F
	SS310F
	SS315F
	SS320F
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	SS 32F	SS 33F	SS 34F	SS 35F	SS 36F	SS 38F	SS 310F	SS 315F	SS 320F	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	42	56	70	84	105	140		V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current at TL (See Fig 1.)	$I_{(AV)}$	3									A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	80									A
Maximum Instantaneous Forward Voltage at 2A	V_F	0.55	0.55	0.55	0.70	0.70	0.85	0.85	0.85	0.95	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage T_A=25℃	I_R	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.20	0.20	mA
T_A=100℃		20	20	20	20	20	10	10	2	2	
Typical Junction Capacitance (1)	C_J	500	500	500	300	300	300	300	300	300	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	55									℃/W
Operating Junction Temperature Range	T_J	-55 ~ + 125					-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

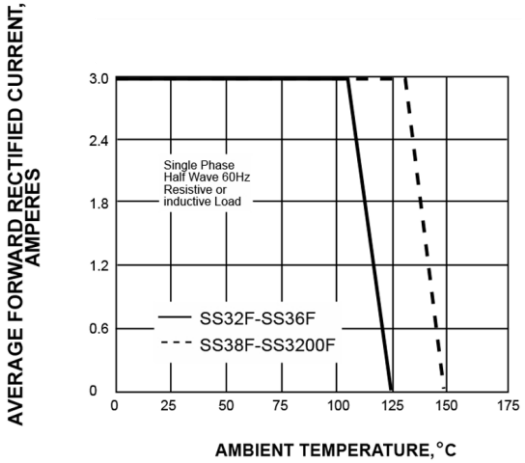


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current

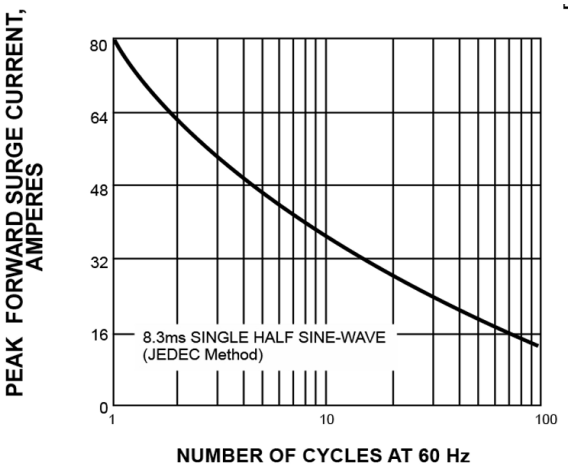


Fig 3. Typical Instantaneous Forward Characteristics

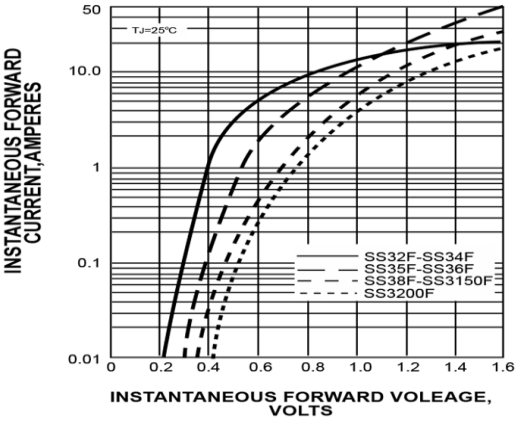


Fig 4. Typical Reverse Characteristics

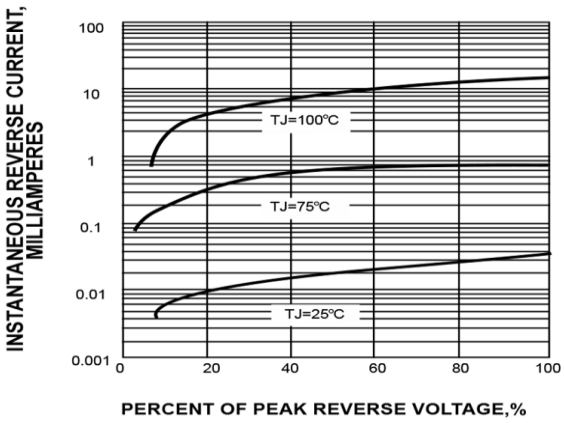


Fig 5. Typical Junction Capacitance

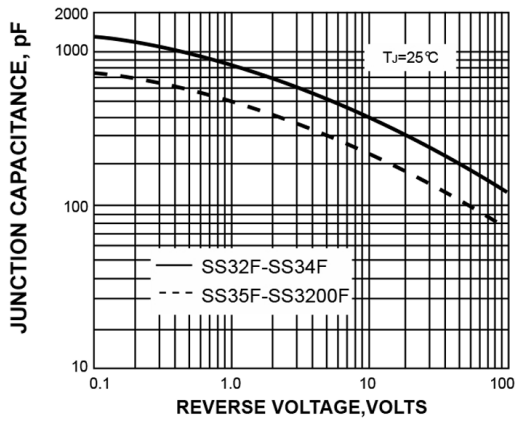
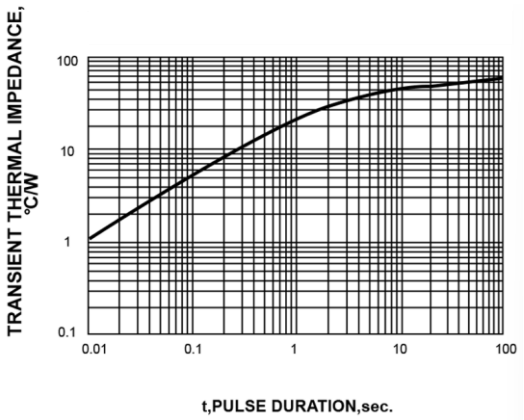
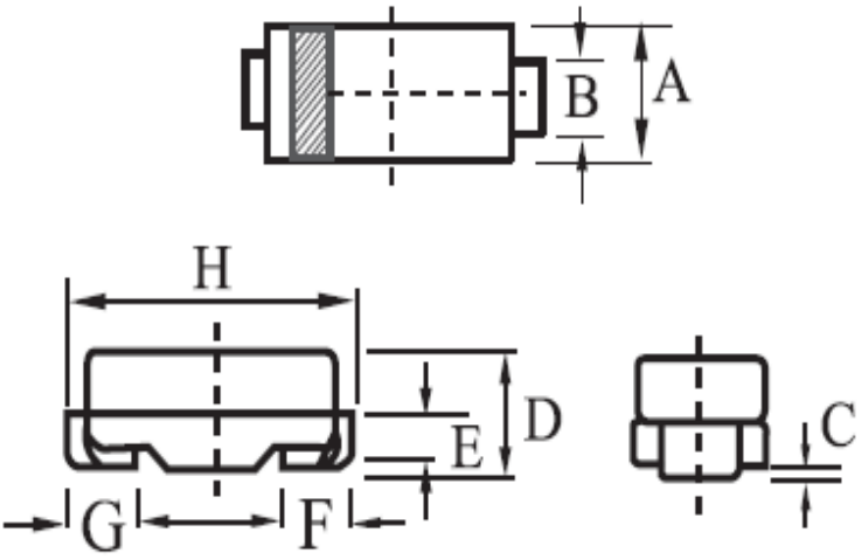


Fig 6. Typical Transient Thermal Impedance



PACKAGE INFORMATION

Dimension in SMAF Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.086	0.110	2.20	2.80
B	0.051	0.067	1.30	1.70
C	-	0.008	-	0.20
D	0.067	0.100	1.70	2.55
E	0.008	0.051	0.20	1.30
F	0.035	0.059	0.90	1.50
G	0.185	0.209	4.70	5.30
H	0.035	0.059	0.90	1.50

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