DESCRIPTION

The SS32A_SS320A are available in SMA 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
- Lead Free in Comply with EU RoHs 2011/65/EU Directives

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.07g / 0.002oz

ORDERING INFORMATION

Package Type	Part Number
SMA	SS32A
	SS34A
	SS36A
	SS38A
	SS310A
	SS312A
	SS315A
	SS320A
Note	SPQ: 2,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION

SMA

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	SS32A	SS34A	SS36A	SS38A	SS310A	SS312A	SS315A	SS320A	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		$I_{F(AV)}$	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	0.70	0.70	0.85	0.85	0.90	0.90	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	450	450	450	400	400	400	400	400	pF
Typical Thermal Resistance (2)		$R_{\theta JA}$	70								℃/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)

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Current Derating Curve

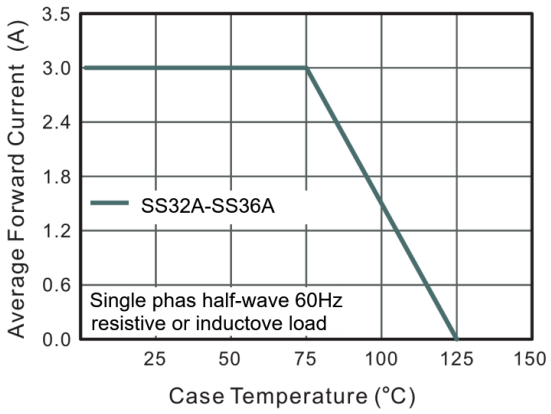


Fig 2. Typical Reverse Characteristics

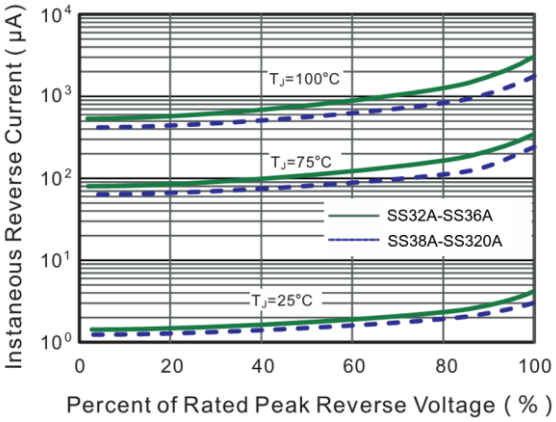


Fig 3. Typical Forward Characteristics

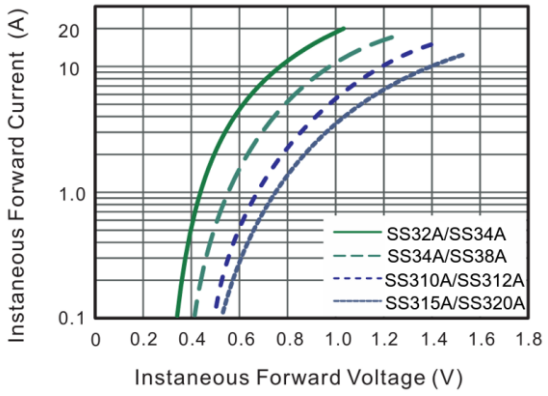


Fig 4. Typical Junction Capacitance

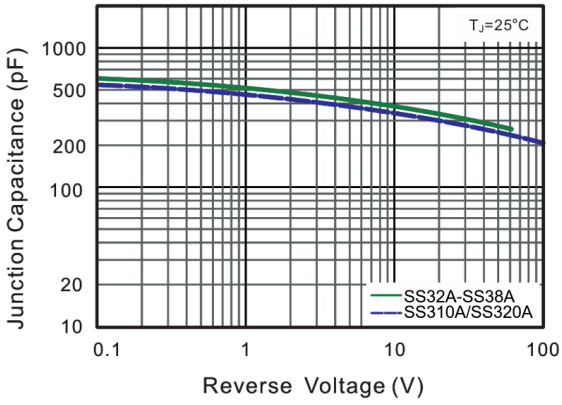


Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

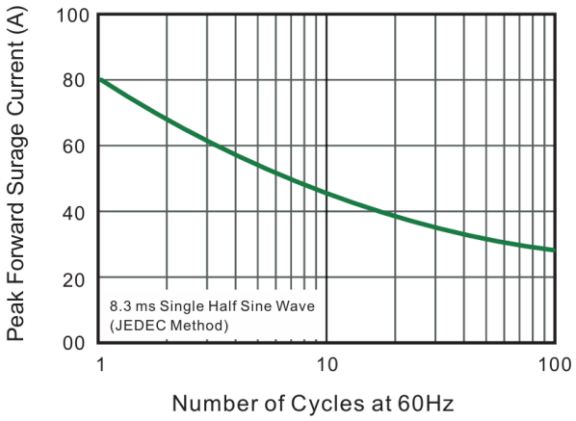
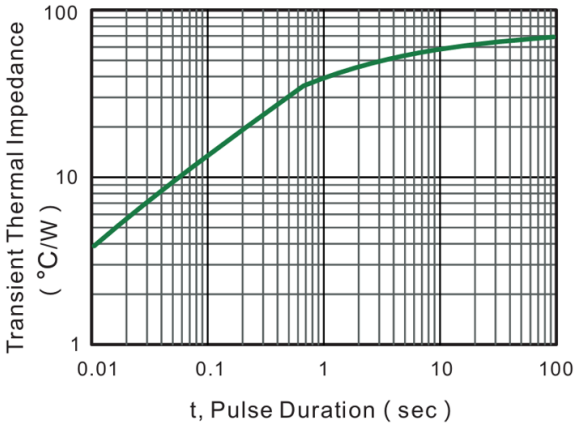
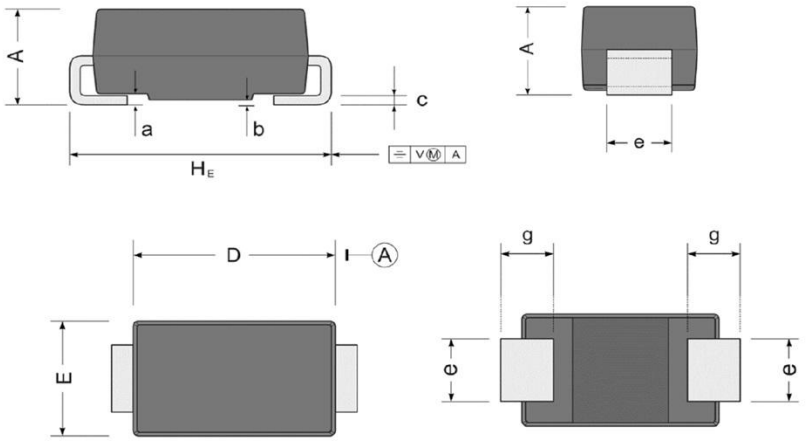


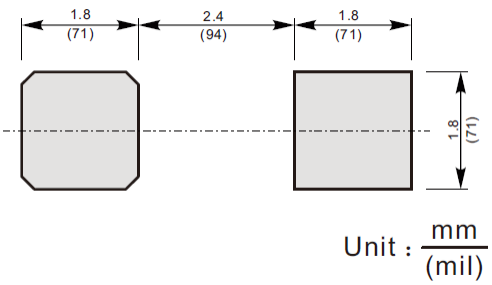
Fig 6. Typical Transient Thermal Impedance



PACKAGE INFORMATION

Dimension in SMA Package





The Recommended Mounting Pad Size

DIM	MILLIMETERS	
	MIN	MAX
A	1.900	2.450
a	0.300	
b	0.050	0.200
c	0.150	0.310
D	4.000	4.500
E	2.500	2.800
e	1.300	1.800
g	0.900	1.500
H_E	4.700	5.200

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.