

**DESCRIPTION**

The SS12A~SS120A are available in SMA package.

MECHANICAL DATA

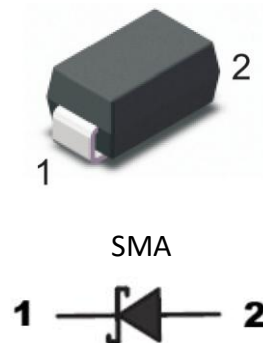
- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.07g / 0.002oz

ORDERING INFORMATION

Package Type	Part Number
SMA	SS12A
	SS14A
	SS16A
	SS18A
	SS110A
	SS112A
	SS115A
	SS120A
Note	SPQ: 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

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

PIN DESCRIPTION

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, derate by 20 %.

Parameter		Symbol	SS12A	SS14A	SS16A	SS18A	SS110A	SS112A	SS115A	SS120A	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		$I_{F(AV)}$	1								A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	40				30				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	$T_A=25^{\circ}C$	I_R	0.30	0.30	0.30	0.30	0.20	0.20	0.10	0.10	mA
	$T_A=100^{\circ}C$		10	10	10	10	5	5	2	2	
Typical Junction Capacitance ⁽¹⁾		C_J	110	110	80	80	80	80	80	80	pF
Typical Thermal Resistance ⁽²⁾		$R_{\theta JA}$	90								$^{\circ}C/W$
Operating Junction Temperature Range		T_J	-55 ~ + 150								$^{\circ}C$
Storage Temperature Range		T_{STG}	-55 ~ + 150								$^{\circ}C$

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.

(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

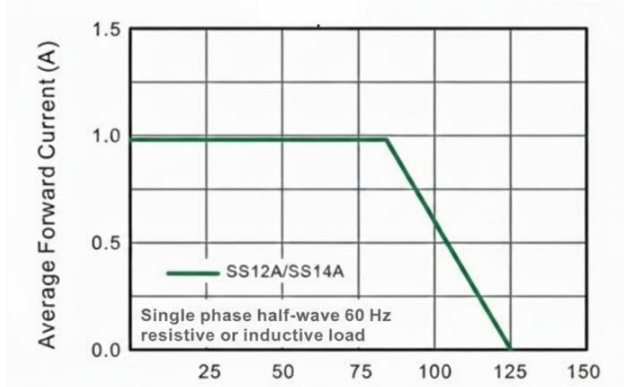


Fig 2. Typical Reverse Characteristics

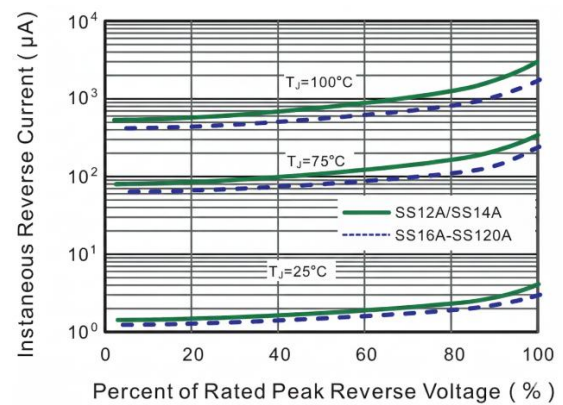


Fig 3. Typical Forward Characteristics

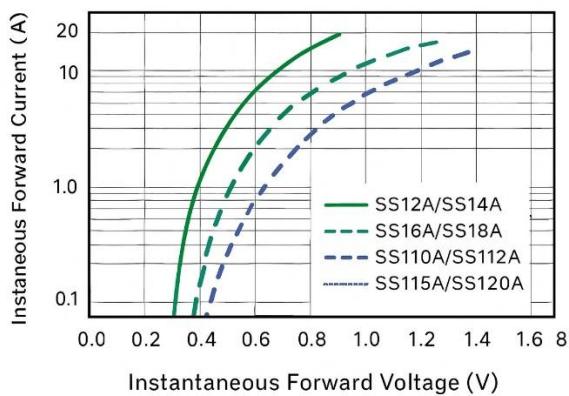


Fig 4. Typical Junction Capacitance

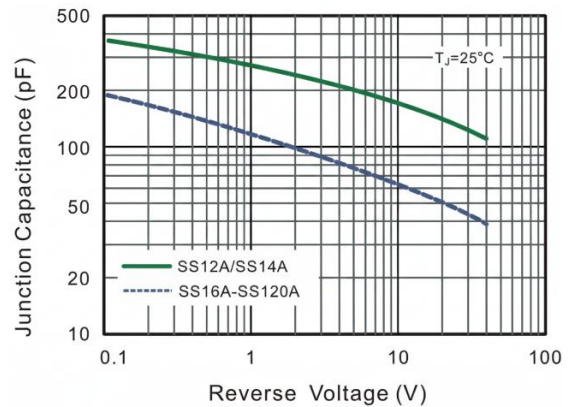


Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

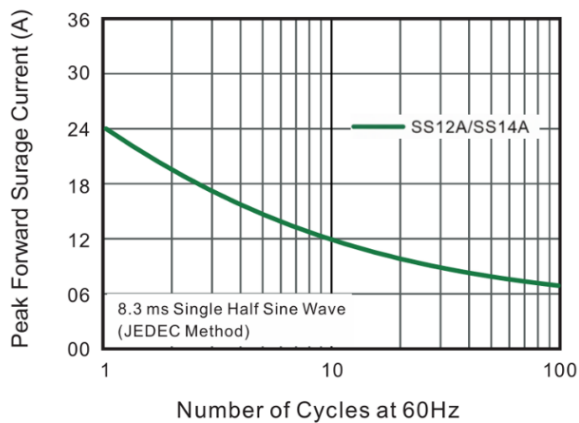
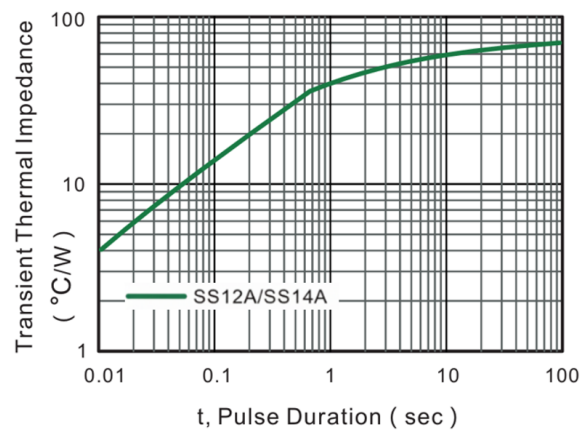


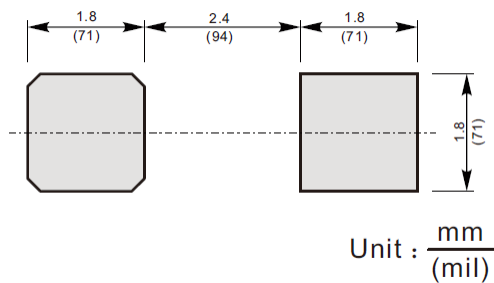
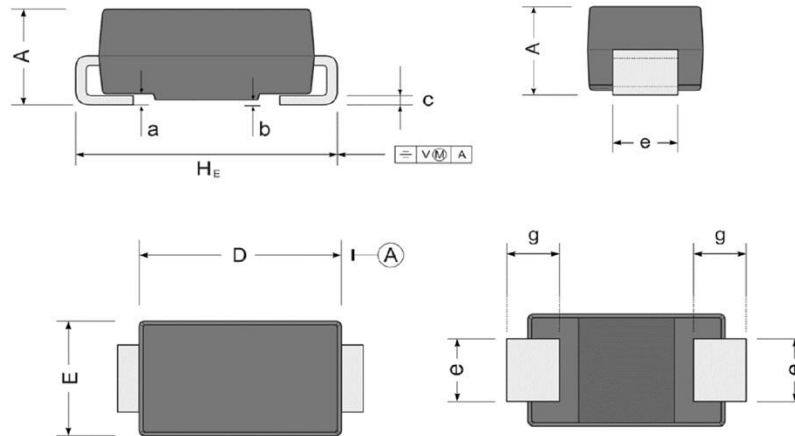
Fig 6. Typical Transient Thermal Impedance





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

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