DESCRIPTION

The SS52_SS520 are available in SMA package.

MECHANICAL DATA

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

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

ORDERING INFORMATION

Package Type	Part Number
SMA	SS52
	SS54
	SS56
	SS58
	SS510
	SS512
	SS515
	SS520
Note	SPQ: 5,000pcs/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	SS52	SS54	SS56	SS58	SS510	SS512	SS515	SS520	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	$I_{F(AV)}$	5								A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	120								A
Maximum Instantaneous Forward Voltage at 5A	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	1								mA
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage T_A=100℃	I_R	50								mA
Typical Junction Capacitance (1)	C_J	500	500	300	300	300	300	300	300	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	60								℃/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

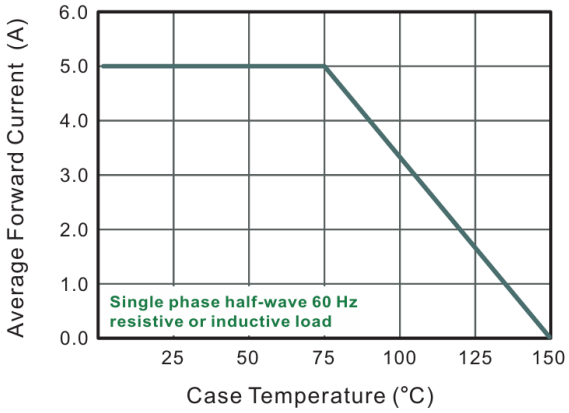


Fig 2. Typical Reverse Characteristics

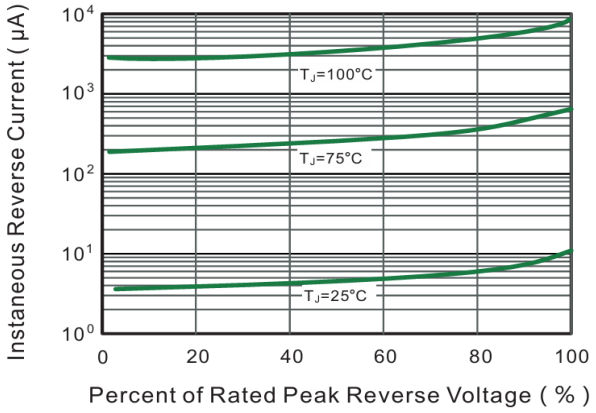


Fig 3. Typical Forward Characteristics

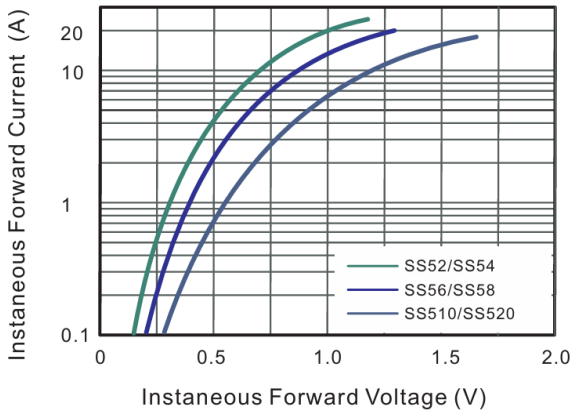


Fig 4. Typical Junction Capacitance

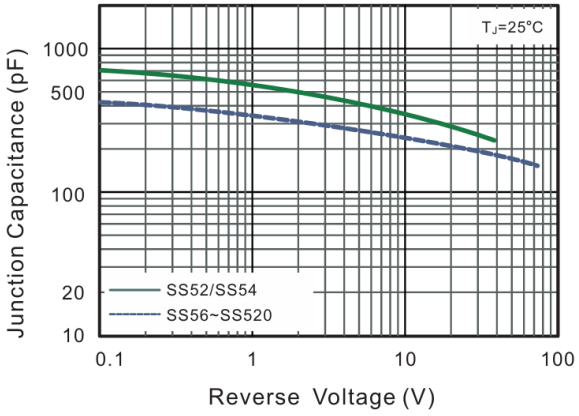


Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

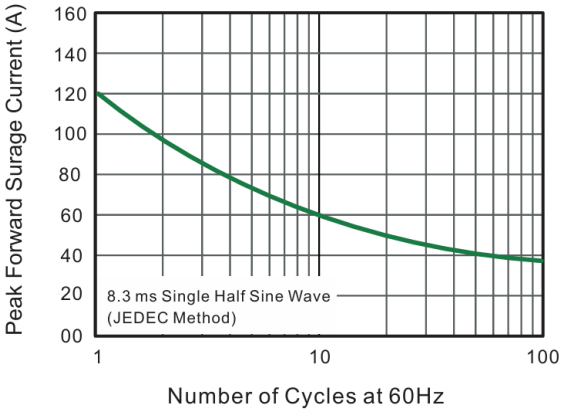
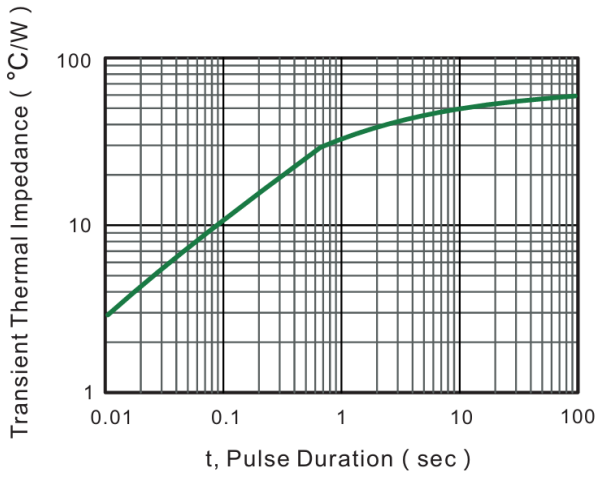
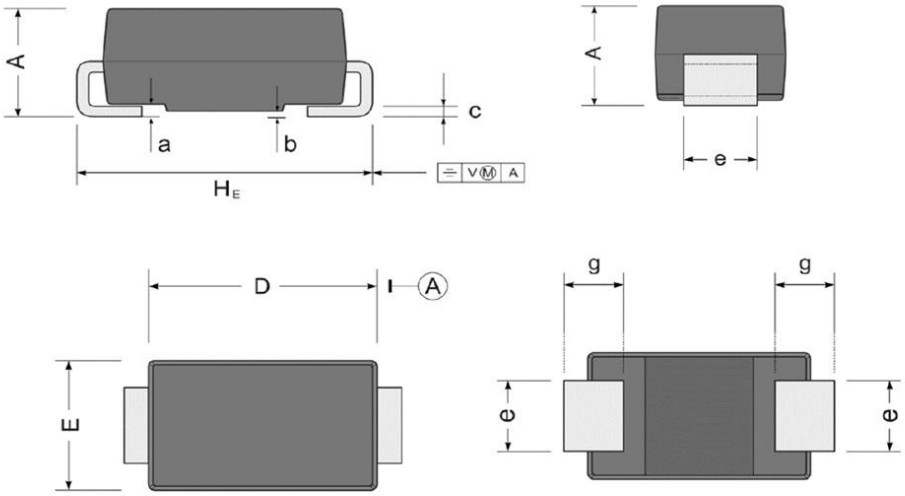


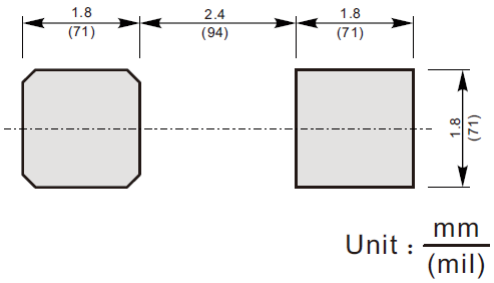
Fig 6. Typical Transient Thermal Impedance



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

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