FEATURES

RS1AA~RS1MA are available in SMA Package

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time.
- Lead free in comply with EU RoHS 2011/65/EU directives

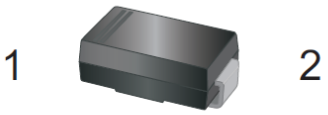
MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

ORDERING INFORMATION

Package Type	Part Number
SMA	RS1AA
	RS1BA
	RS1DA
	RS1GA
	RS1JA
	RS1KA
	RS1MA
SPQ	5,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



SMA Package

PIN#	DESCRIPTION
1	Cathode
2	Anode

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified.

Parameter	Symbols	RS1AA	RS1BA	RS1DA	RS1GA	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	V
Maximum Average Forward Rectified Current at T_c = 125 °C	$I_{F(AV)}$	1				A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30				A
Maximum Forward Voltage at 1 A	V_F	1.3				V
Maximum DC Reverse Current T_A = 25 °C at Rated DC Blocking Voltage T_A =125 °C	I_R	5 50				μA
Typical Junction Capacitance at V_R=4V, f=1MHz	C_J	15				pF
Maximum Reverse Recovery Time(1)	t_{rr}	150				ns
Typical Thermal Resistance(2)	$R_{\theta JA}$	75				°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150				°C

Parameter	Symbols	RS1JA	RS1KA	RS1MA	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Maximum RMS voltage	V_{RMS}	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	V
Maximum Average Forward Rectified Current at T_c = 125 °C	$I_{F(AV)}$	1			A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30			A
Maximum Forward Voltage at 1 A	V_F	1.3			V
Maximum DC Reverse Current T_A = 25 °C at Rated DC Blocking Voltage T_A =125 °C	I_R	5 50			μA
Typical Junction Capacitance at V_R=4V, f=1MHz	C_J	15			pF
Maximum Reverse Recovery Time(1)	t_{rr}	250	500		ns
Typical Thermal Resistance(2)	$R_{\theta JA}$	75			°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150			°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 with IF = 0.5 A, I_R = 1 A, Irr = 0.25 A.

(2) P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

TYPICAL CHARACTERISTICS

Fig 1. Forward Current Derating Curve

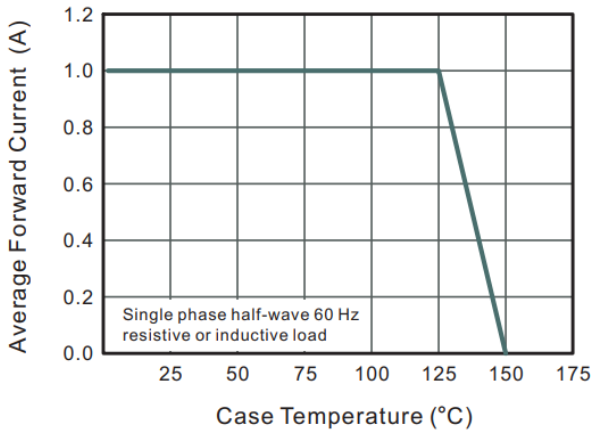


Fig 2. Typical Reverse Characteristics

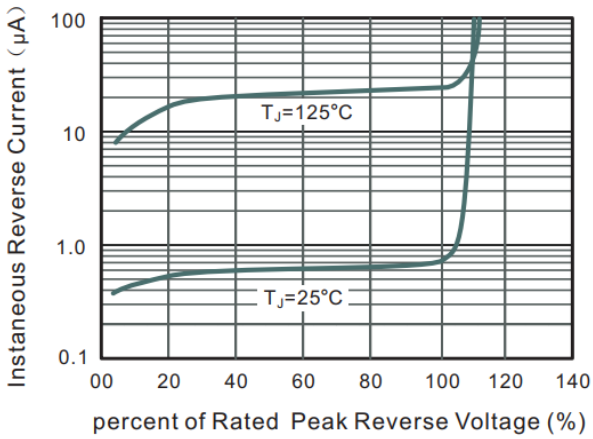


Fig 3. Typical Instantaneous Forward Characteristics

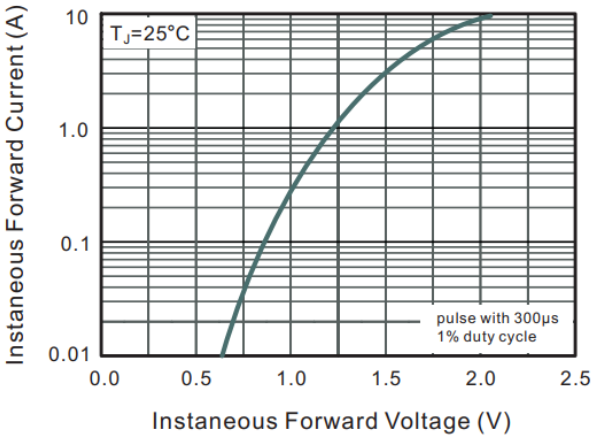


Fig 4. Typical Junction Capacitance

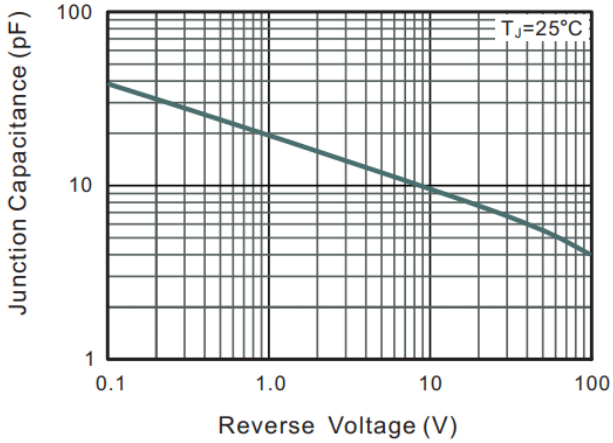
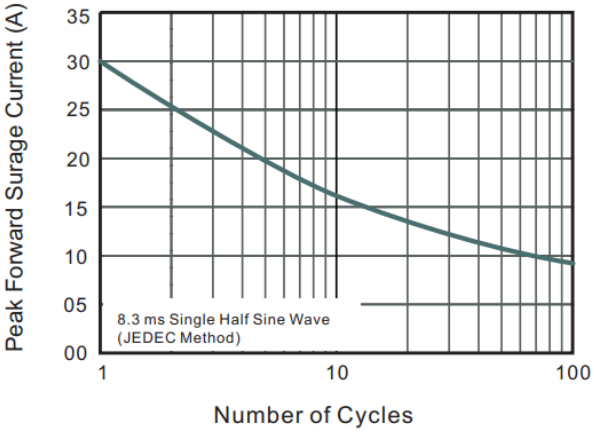
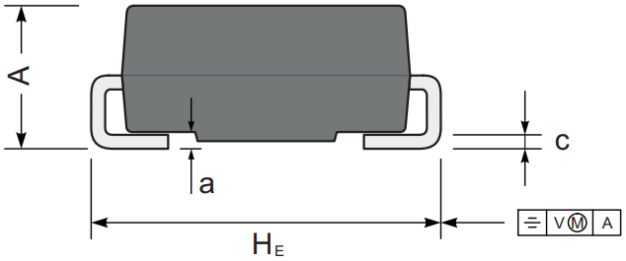


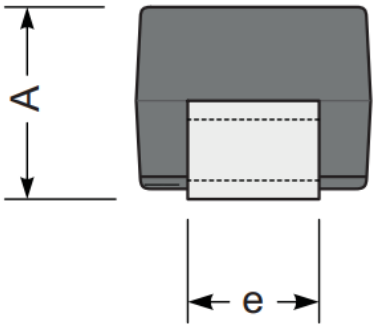
Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

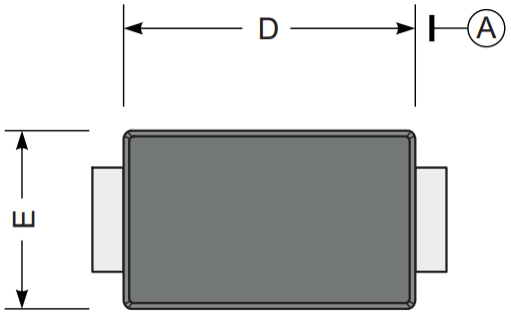


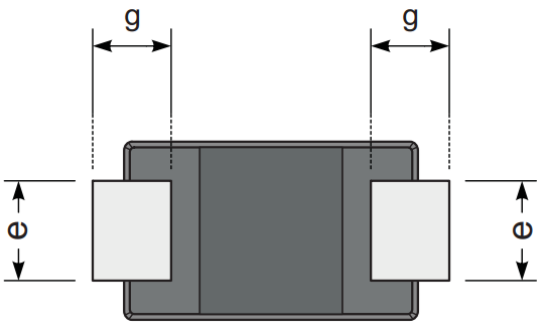
PACKAGE INFORMATION

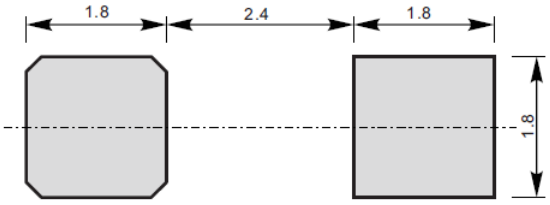
Dimension in SMA Package (Unit: mm)











Recommended Mounting Pad Size

Symbol	Min	Max
A	1.9	2.45
D	4.0	4.5
E	2.5	2.8
H_E	4.7	5.2
c	0.15	0.31
e	1.3	1.8
g	0.9	1.5
b	0.05	0.2
a	0.3	

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