

RS1AW~RS1MW

SURFACE MOUNT FAST RECOVERY RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Ampere

SMA-W

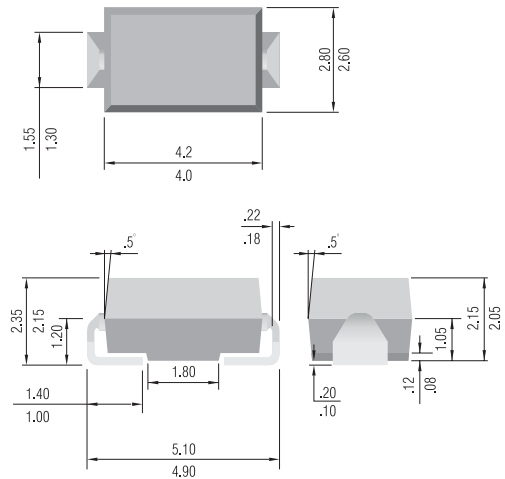
Unit: mm

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

- Case: SMA-W molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750D, Method 1036.3
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.002 ounce, 0.064 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	RS1AW	RS1BW	RS1DW	RS1GW	RS1JW	RS1KW	RS1MW	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	800	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Rectified Current at T _L =90 °C	I _{F(AV)}	1.0							A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	30							A
Maximum Forward Voltage at 1.0A	V _F	1.3							V
Maximum DC Reverse Current T _J =25°C at Rated DC Blocking Voltage T _J =125°C	I _R	5.0 150							uA
Maximum Reverse Recovery Time (Note 1)	t _{rr}	150				250	500		ns
Maximum Junction capacitance (Note 2)	C _J	12							pF
Typical Junction Resistance(Note 3)	R _{θJA} R _{θJL}	100 32							°C / W
Operating Junction and Storage Temperature Rating	T _J , T _{STG}	-55 TO +150							°C

NOTES:1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

2. Measured at 1 MHz and applied $V_r = 4.0$ volts.

3. 8.0 mm² (.013mm thick) land areas.

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RATING AND CHARACTERISTIC CURVES

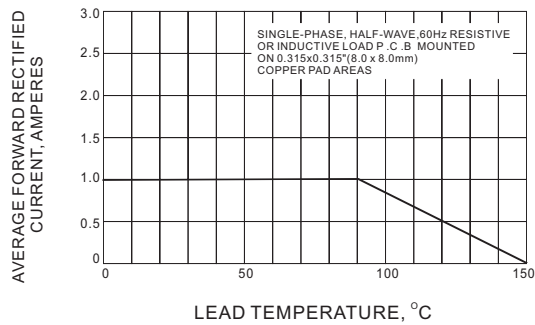


Fig.1 FORWARD CURRENT DERATING CURVE

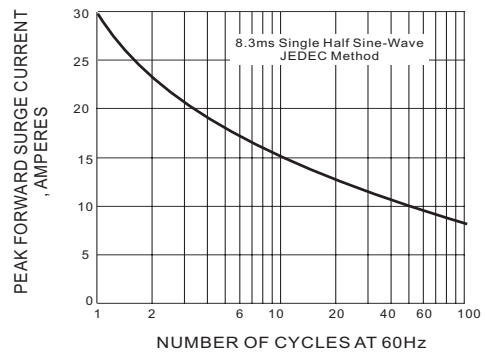


Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

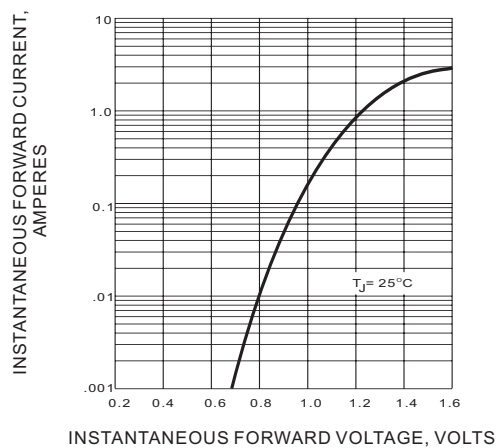


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

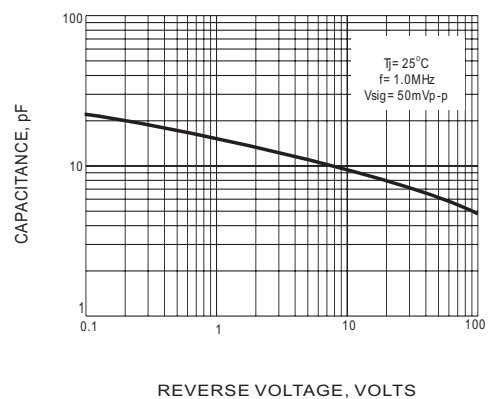


Fig.4 TYPICAL JUNCTION CAPACITANCE

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