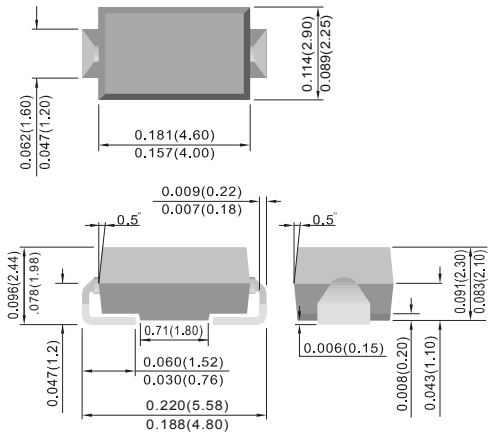
RS1AW - RS1MW

SURFACE MOUNT FAST RECOVERY RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT 1 Amperes

Green

SMA(W) Unit : inch(mm)

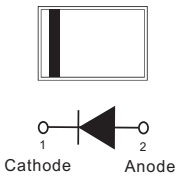


FEATURES

- For surface mounted applications in order to optimize board space
- Easy pick and place
- Fast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)



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	$I_{F(AV)}$	1							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 1A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5							μA
Maximum Junction Capacitance (V_R=4V,f=1MHz)	C_J	15							pF
Typical Junction Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	150 35							°C / W
Maximum Reverse Recovery Time (Note 3)	t_{rr}	150				250	500		ns
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +125							°C

NOTES:1. Mounted on an FR4 PCB, single-sided copper, mini pad.
2. Mounted on an FR4 PCB,single-sided copper, with 76.2 x 114.3mm copper pad area.
3. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_{rr}=0.25A.

RS1AW - RS1MW

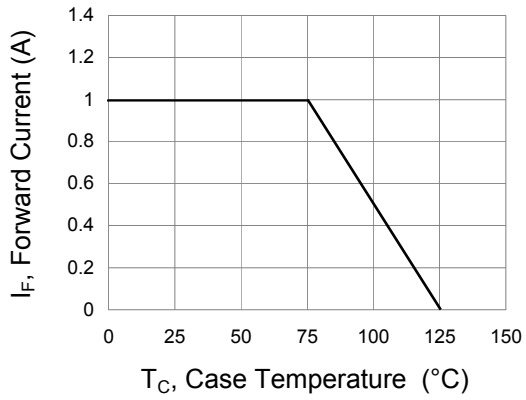


Fig.1 Forward Current Derating Curve

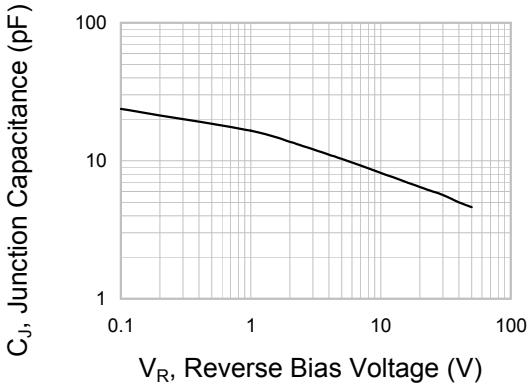


Fig.2 Typical Junction Capacitance

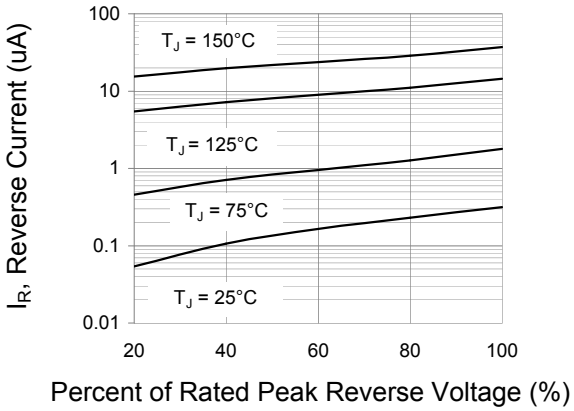


Fig.3 Typical Reverse Characteristics

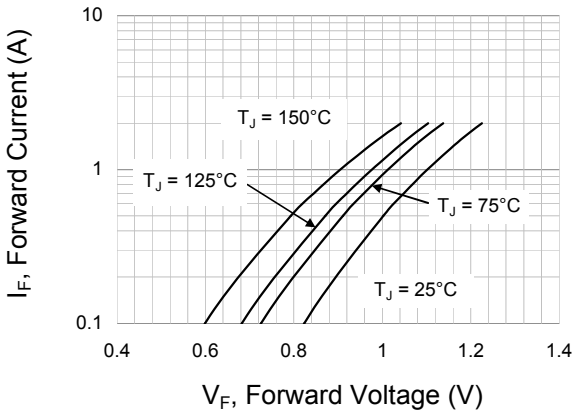


Fig.4 Typical Forward Characteristics