



DATA SHEET

RS1A~RS1M

SURFACE MOUNT FAST RECOVERY RECTIFIER

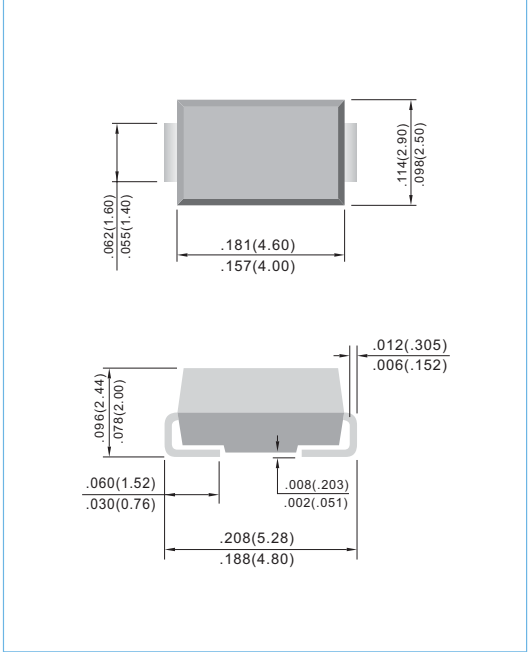
VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes **SMA/DO-214AC** Unit: inch (mm)

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
- Glass passivated junction
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 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	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	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	700	V	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Rectified Current at TL=90 °C	I _o	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 TA=25°C at Rated DC Blocking Voltage TA=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 _T	12								pF

TYPICAL THERMAL RESISTANCE

PARAMETER	SYMBOL	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS	
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.



RATING AND CHARACTERISTIC CURVES

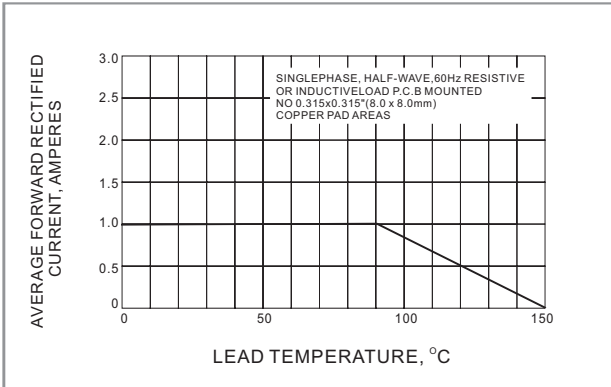


Fig. 1 FORWARD CURRENT DERATING CURVE

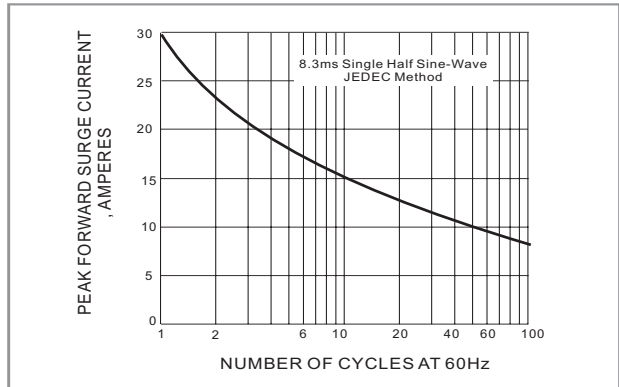


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

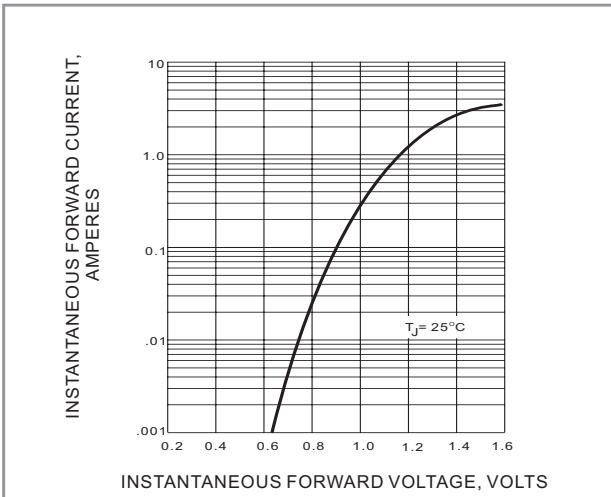


Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

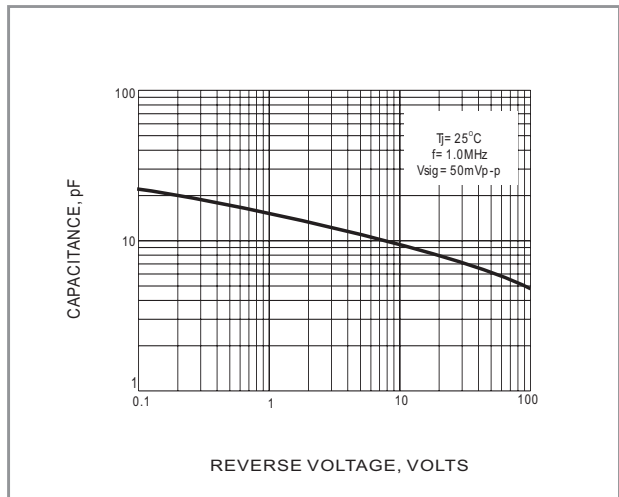


Fig. 4 TYPICAL JUNCTION CAPACITANCE