

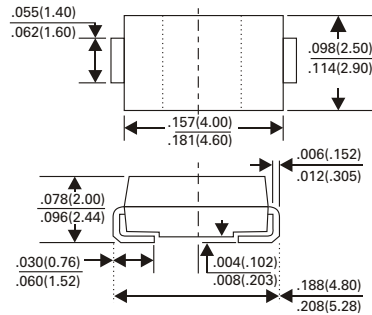
RS2AA thru RS2MA

SURFACE MOUNT FAST RECOVERY RECTIFIER

VOLTAGE - 50 TO 100 VOLTS CURRENT - 2.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Glass passivated junction chip
- Built-in strain relief, ideal for automated placement
- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Fast switching for high efficiency
- High temperature soldering : 260°C/10seconds at terminals

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic
 Terminals : Pure tin plated, Lead free.
 Polarity : Indicated by cathode band
 Standard packaging : 12mm tape EIA STD RS-481
 Weight : 0.064grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	RS2AA	RS2BA	RS2DA	RS2GA	RS2JA	RS2KA	RS2MA	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current @ $T_L = 100^\circ C$	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							Amps
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.3							Volts
Maximum DC Reverse Current @ $T_A = 25^\circ C$ at Rated DC Blocking Voltage @ $T_A = 125^\circ C$	I_R	5.0 200							μA
Maximum Reverse Recovery Time (NOTE 1) $T_J = 25^\circ C$	T_{RR}	150				250	500		nS
Typical Junction Capacitance (NOTE 2)	C_J	50							pF
Maximum Thermal Resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	55 18							$^\circ C / W$
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							$^\circ C$

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 reverse Voltage of 4.0VDC
3. Thermal Resistance from Junction to Ambient and Junction to Lead Mounted on P.C.B. with 0.2"X0.2" (0.5X0.5mm) copper Pad Areas

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RATING AND CHARACTERISTICS CURVES RS2AA THRU RS2MA

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

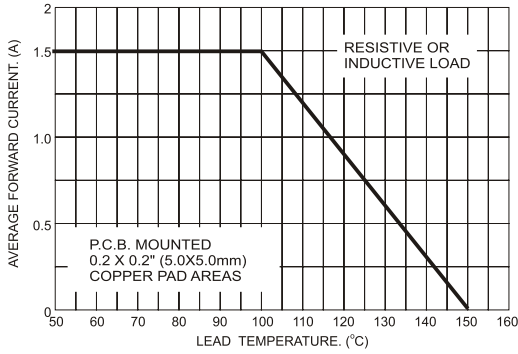


FIG.2- TYPICAL REVERSE CHARACTERISTICS

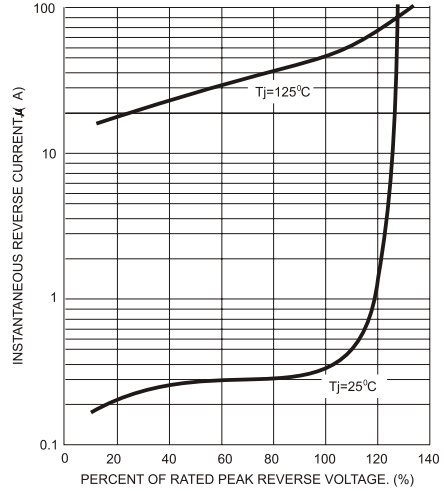


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

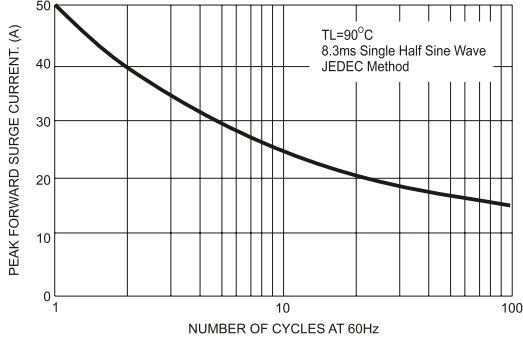


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

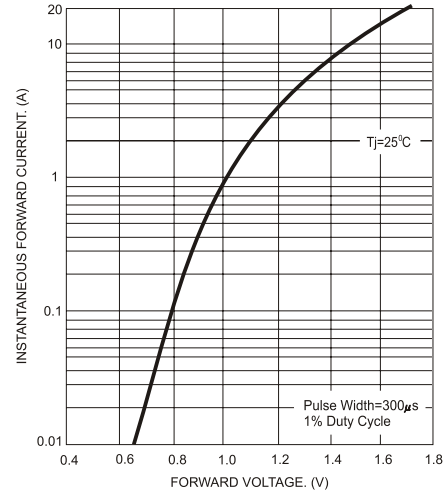


FIG.4- TYPICAL JUNCTION CAPACITANCE

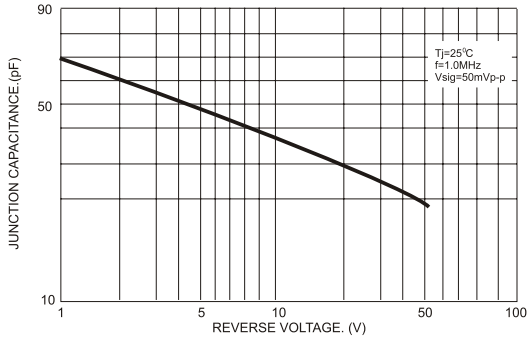


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

