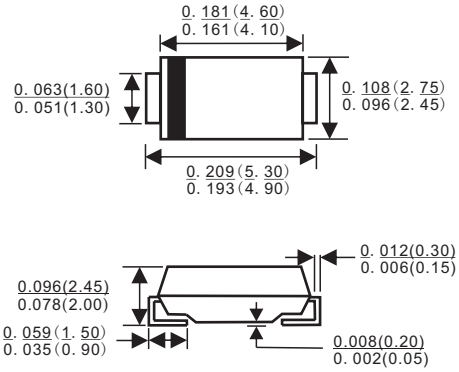
RS2AA-RS2MA

2.0 AMPS. Surface Mount Fast Recovery Rectifiers

SMA/DO-214AC

Features

- ✧ For surface mounted application
- ✧ 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 / 10 seconds at terminals



Dimensions in inches and(millimeters)

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, Lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape
- ✧ Weight: 0.064 gram

Maximum Ratings and Electrical Characteristics

Rating 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%

Patrmeter	Symbol	RS 2AA	RS 2BA	RS 2DA	RS 2GA	RS 2JA	RS 2KA	RS 2MA	Uints
Marking code		RS 2A	RS 2B	RS 2D	RS 2G	RS 2J	RS 2K	RS 2M	
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 Forward Rectified Current See Fig. 1 @T_L=100°C	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	1.3							V
Maximum DC Reverse Current @ T_A =25 °C at Rated DC Blocking Voltage @ T_A=125 °C	I_R	5 200							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		nS
Typical Junction Capacitance (Note 2)	Cj	50							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	55 18							°C /W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	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. Thermal Resistance from Junction to Ambient and Junction to Lead Mounted on P.C.B. with 0.4" x 0.4" (10mm x 10 mm) Copper Pad Areas.

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RATINGS AND CHARACTERISTIC CURVES (RS2AA THRU RS2MA)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

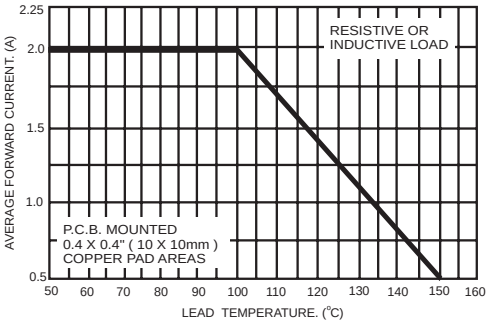


FIG.2- TYPICAL REVERSE CHARACTERISTICS

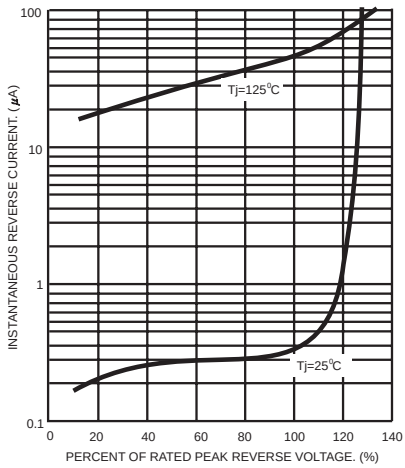


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

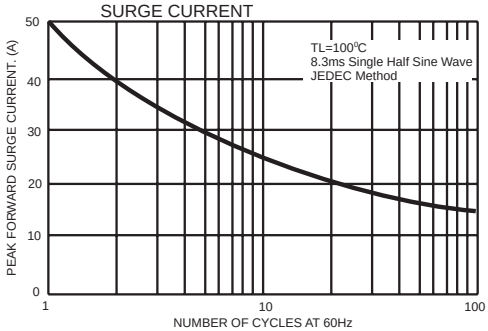


FIG.4- TYPICAL JUNCTION CAPACITANCE

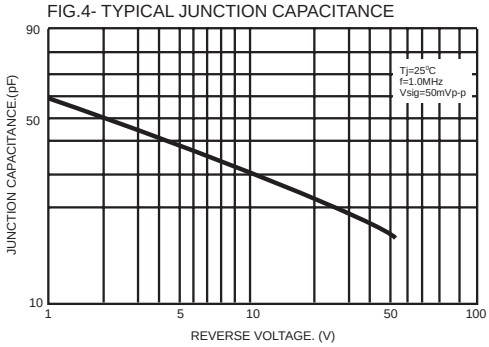


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

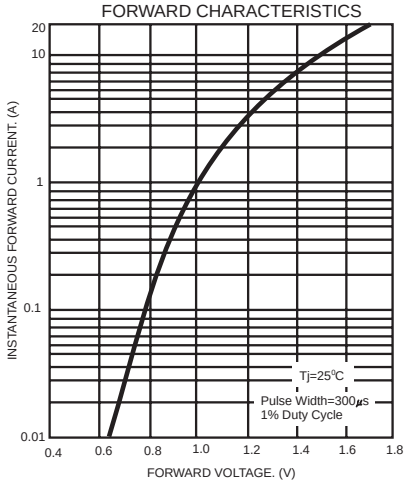
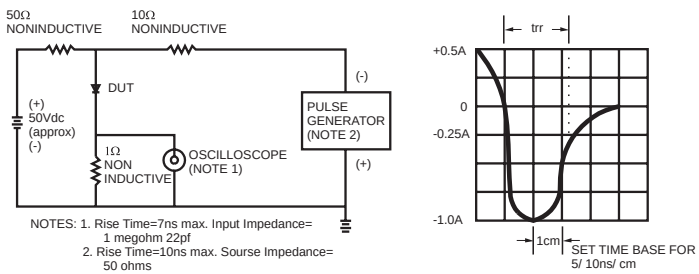


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00