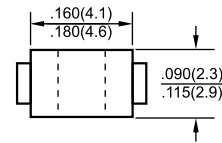
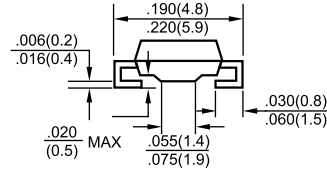
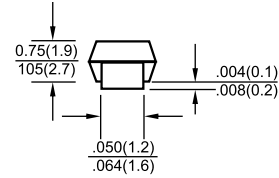




SMA/DO-214AC



Dimensions in inches and (millimeters)

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

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%

Type Number	Symbol	RS 2AA	RS 2BA	RS 2DA	RS 2GA	RS 2JA	RS 2KA	RS 2MA	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 Forward Rectified Current See Fig. 1 @ $T_J=100^{\circ}C$	$I_{(AV)}$	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 @ $T_A=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_A=125^{\circ}C$	I_R	5 200							μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_j	50							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$					55 18			$^{\circ}C / W$
Operating Temperature Range	T_J	-55 to +150							$^{\circ}C$
Storage Temperature Range	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 $V_R=4.0$ 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.

RATINGS AND CHARACTERISTIC CURVES (RS2AA THRU RS2MA)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

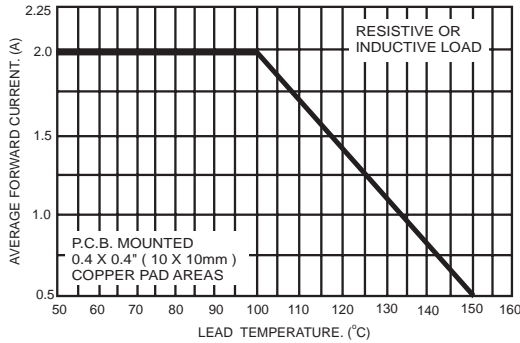


FIG.2- TYPICAL REVERSE CHARACTERISTICS

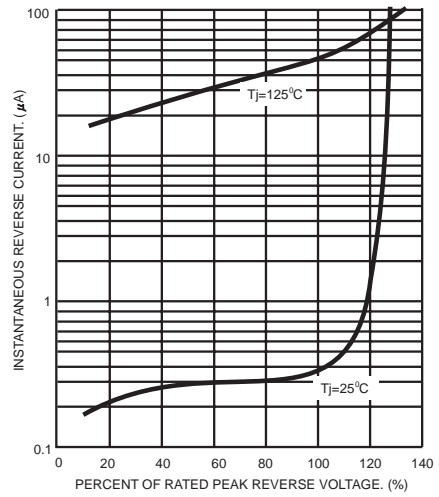


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

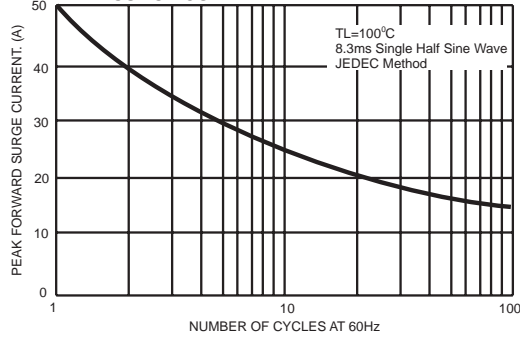


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

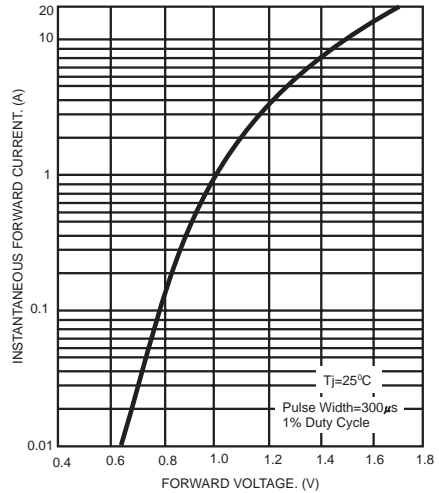


FIG.4- TYPICAL JUNCTION CAPACITANCE

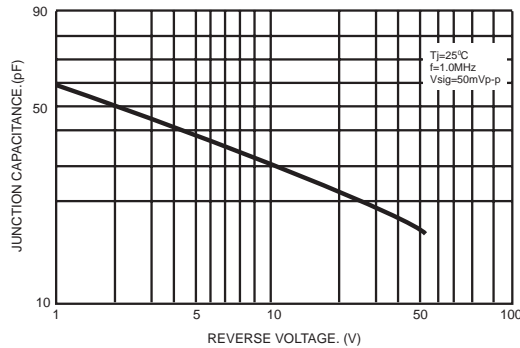


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

