



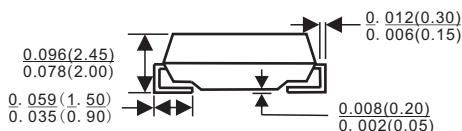
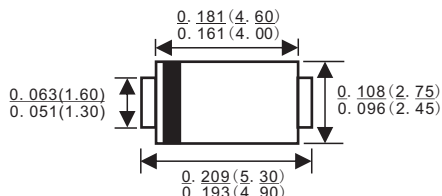
Features

- ✧ For surface mounted application
- ✧ Glass passivated junction chip.
- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 12mm tape
- ✧ Weight: 0.064 gram

SMA/DO-214AC



Dimensions in inches and(millimeters)

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	S1AA	S1BA	S1DA	S1GA	S1JA	S1KA	S1MA	S1TA	S1WA	S1XA	S1YA	Units
Marking code		S1A	S1B	S1D	S1G	S1J	S1K	S1M	S1T	S1W	S1X	S1Y	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	1300	1600	1800	2000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	760	780	840	900	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	1300	1600	1800	2000	V
Maximum Average Forward Rectified Current @T _L =110 °C	I _(AV)	1.0											A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30											A
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	1.1											V
Maximum DC Reverse Current @ T _A =25 °C at Rated DC Blocking Voltage @ T _A =125 °C	I _R	1.0 50											uA uA
Typical Reverse Recovery Time (Note 1)	T _{rr}	1.5											uS
Typical Junction Capacitance (Note 2)	C _j	12											pF
Non-Repetitive Peak Reverse Avalanche Energy at 25°C, I _{AS} =1A, L=10m H	E _{AS}	5											mJ
Typical Thermal Resistance (Note 3)	R _{θJL}	27					30						°C/W
	R _{θJA}	75					85						
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. Measured on P.C. Board with 0.2" x 0.2" (5.0mm x 5.0mm) Copper Pad Areas.



RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

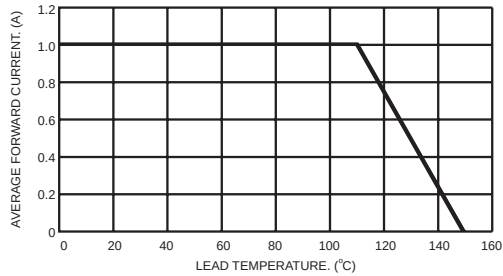


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

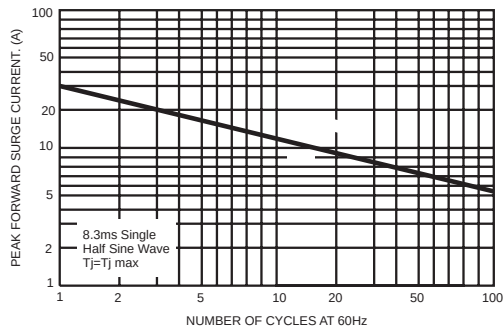


FIG.4- TYPICAL JUNCTION CAPACITANCE

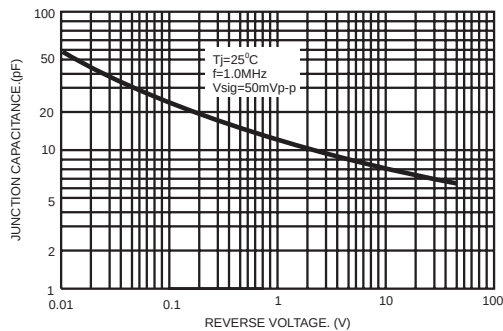


FIG.2- TYPICAL REVERSE CHARACTERISTICS

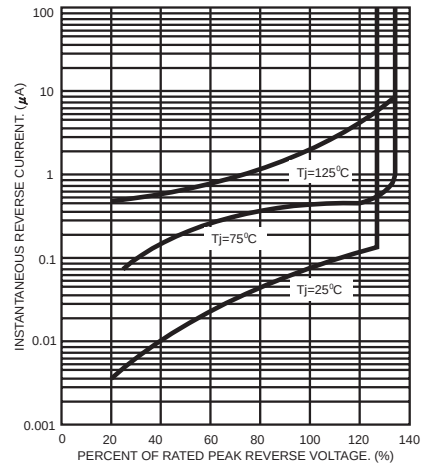


FIG.5- TYPICAL FORWARD CHARACTERISTICS

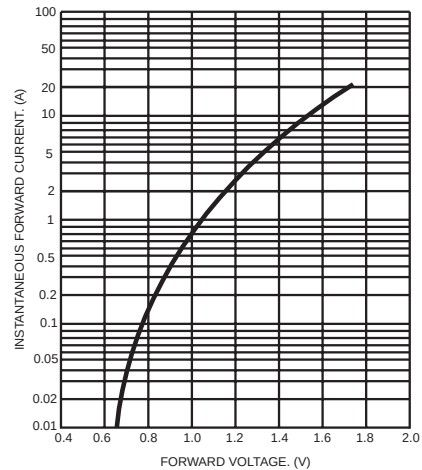
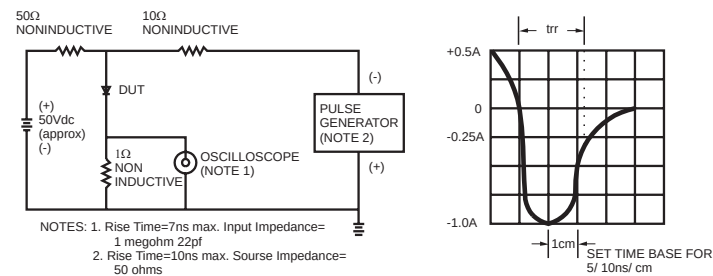


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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