



**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT  
FAST RECOVERY RECTIFIER**  
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.0 Ampere



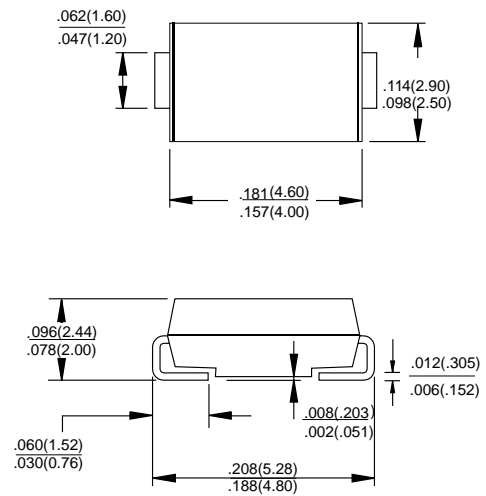
**FEATURES**

- Ideal for surface mounted applications
- Low leakage current
- Glass passivated junction
- High temperature soldering : 260°C /10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request.

**MECHANICAL DATA**

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting position: Any

SMA/DO-214AC Unit:inch(mm)



**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%.

	SYMBOL	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at TA = 55 °C	IO	1.0							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps	
Maximum Forward Voltage at 1.0A DC	VF	1.3							Volts	
Maximum DC Reverse Current at	IR	@TA = 25 °C	5.0							uAmps
Rated DC Blocking Voltage		@TA = 125 °C	150							
Maximum Reverse Recovery Time (Note 3)	trr	150				250	500	nSec		
Maximum Thermal Resistance (Note 2)	RθJA	30							°C / W	
Typical Junction Capacitance (Note 1)	CJ	15							pF	
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150 °C							°C	

- NOTES :**
1. Measured at 1.0 MHz and applied reverse voltage of 4.0VDC
  2. Thermal Resistance (Junction to Ambient), .24in (6.0mm) 2 copper pads to each terminal.
  3. Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 0.25A

# DEVICE CHARACTERISTICS

## RS1A THRU RS1M

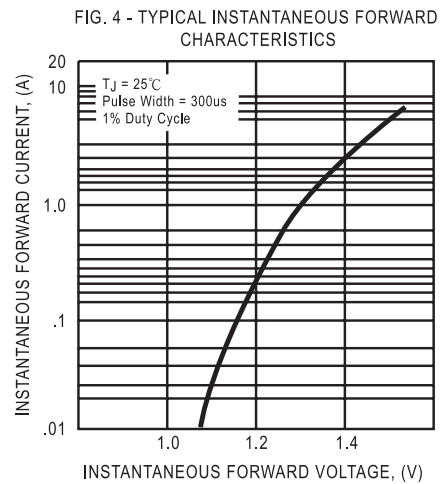
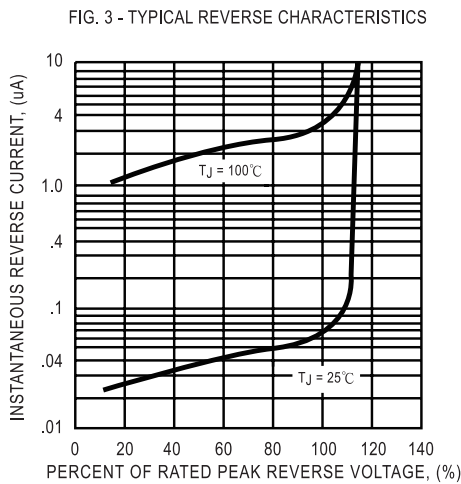
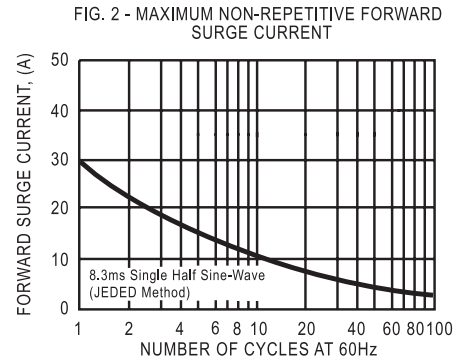
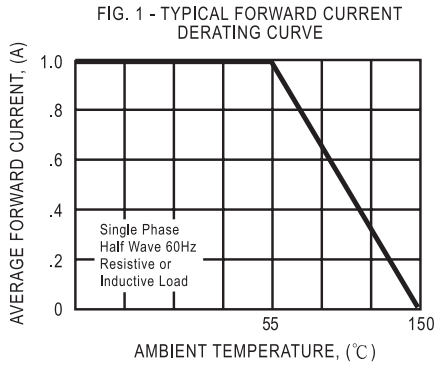
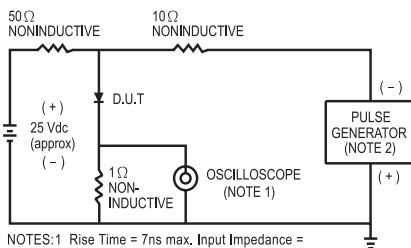


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm, 22 pF.  
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

