

Surface Mount Fast Recovery Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

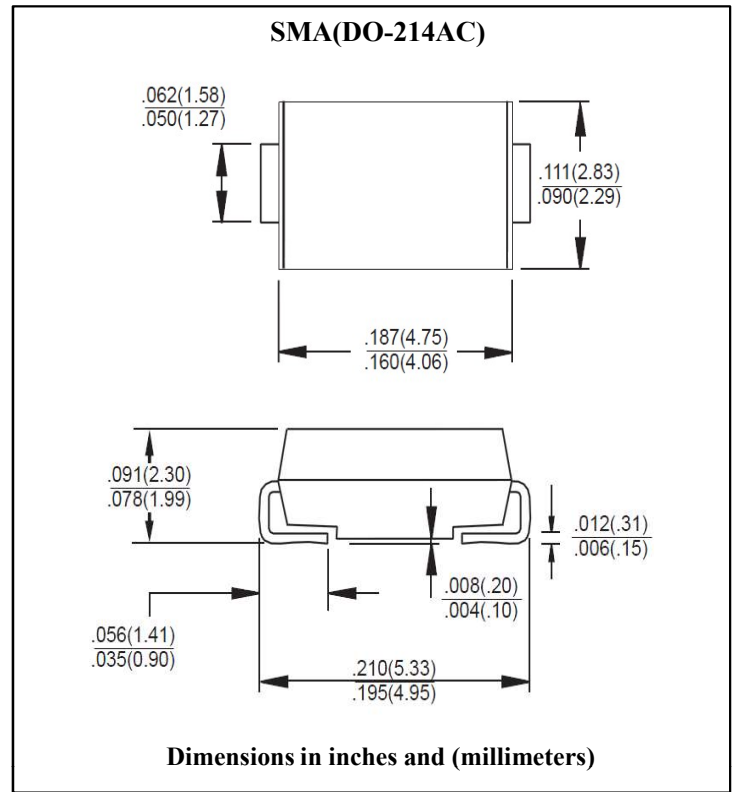
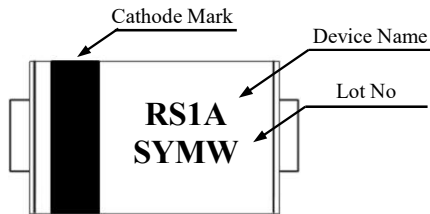
Features

- For surface mounted application
- Glass passivated junction chip
- Fast reverse recovery time
- Fast switching for high efficiency
- High current capability
- High temperature soldering: 260°C/10 seconds at terminals

Mechanical Data

- Case : Molded plastic
- Terminals : Solderable plated
- Polarity : Indicated by cathode band
- Weight : 0.064 gram

Marking



Maximum Ratings & 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%

Parameter	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit	Remark
Maximum Repetitive 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	$I_F(AV)$	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	1.3							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0							uA	Ta=25°C
		50							uA	Ta=125°C
Maximum Reverse Recovery Time	t_{rr}	150			250		500		ns	Note 1
Typical Junction Capacitance	C_J	10							pF	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	105							°C/W	Note 3
	$R_{th(j-l)}$	32							°C/W	
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C	

Note 1. Reverse Recovery Time Test Conditions : $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Note 3. Measured on P.C.Board with 0.2" × 0.2" (5.0mm×5.0mm) Copper Pad Areas.

Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

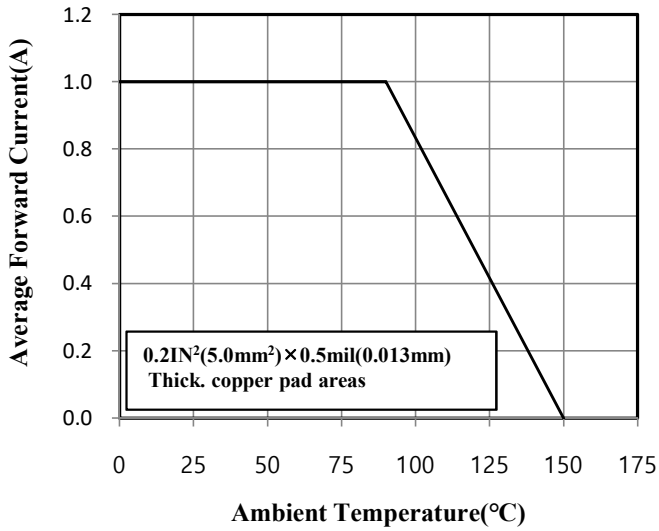


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

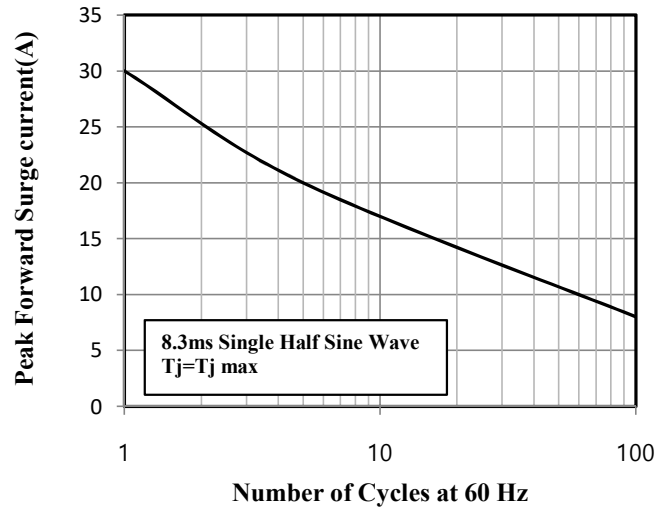


Fig.3 Typical Instantaneous Forward Characteristics

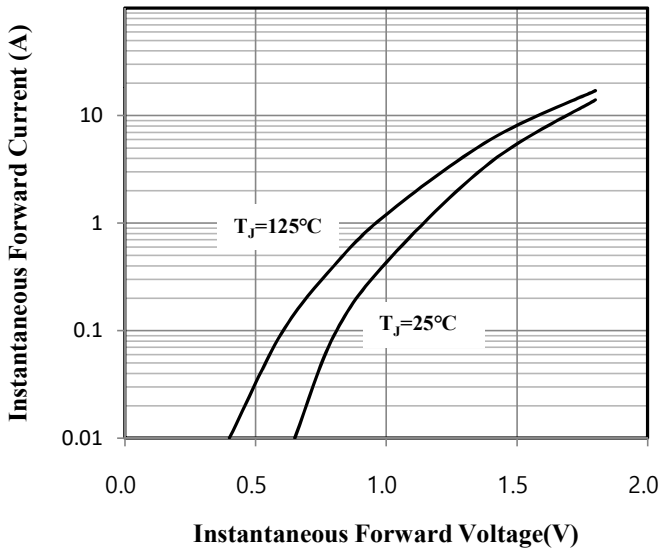


Fig.4 Typical Junction Capacitance

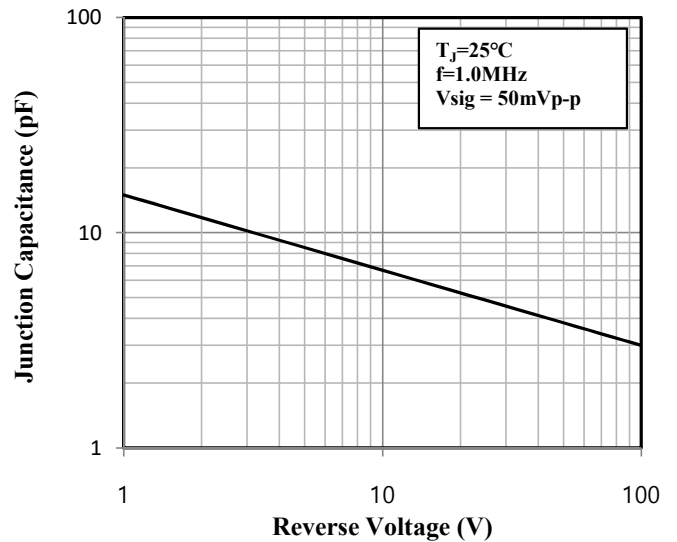


Fig.5 Typical Reverse Characteristics

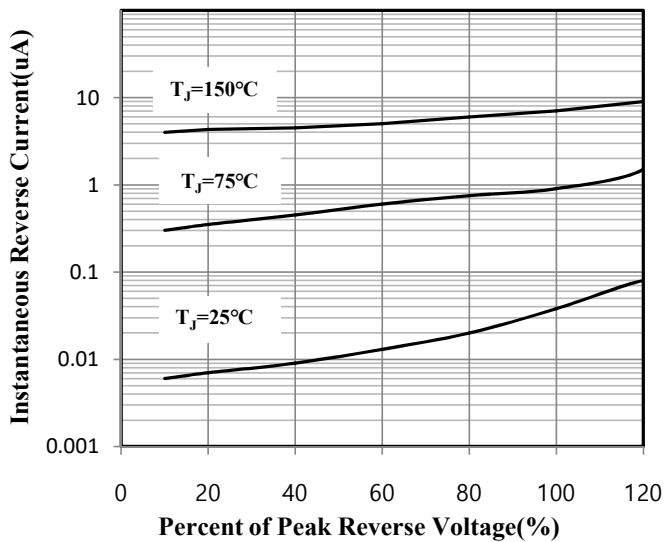


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

