

# SR3A - SR3M

**PRV : 50 - 1000 Volts**

**Io : 3.0 Amperes**

## FEATURES :

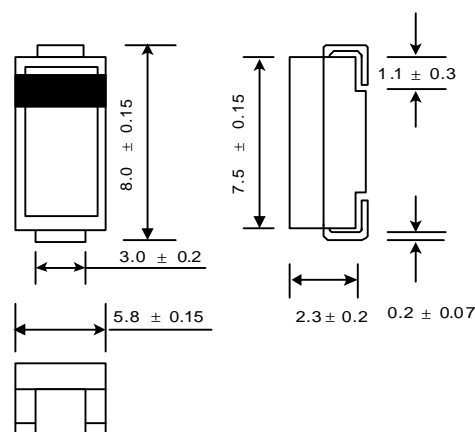
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency

## MECHANICAL DATA :

- \* Case : SMC Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.21 gram

## SURFACE MOUNT FAST RECOVERY RECTIFIERS

### SMC (DO-214AB)



Dimensions in millimeter

## 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%.

RATING	SYMBOL	SR3A	SR3B	SR3D	SR3G	SR3J	SR3K	SR3M	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Ta = 55 °C	IF(AV)	3.0							A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method)	IFSM	200							A
Maximum Peak Forward Voltage at IF = 3 A	VF	1.3							V
Maximum DC Reverse Current Ta = 25 °C	IR	10							μA
at Rated DC Blocking Voltage Ta = 100 °C	IR(H)	150							μA
Maximum Reverse Recovery Time ( Note 1 )	Trr	150				250	500		ns
Typical Junction Capacitance ( Note 2 )	CJ	60							pf
Junction Temperature Range	TJ	- 65 to + 150							°C
Storage Temperature Range	TSTG	- 65 to + 150							°C

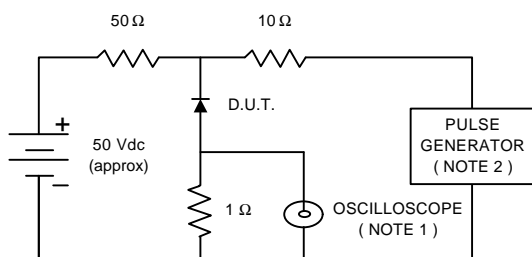
## Notes :

( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.

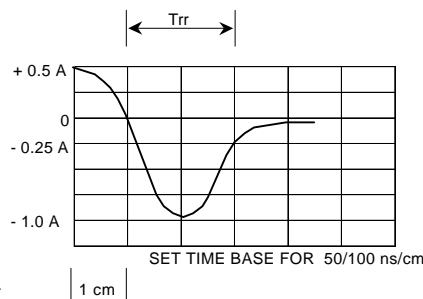
( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

## RATING AND CHARACTERISTIC CURVES ( SR3A - SR3M )

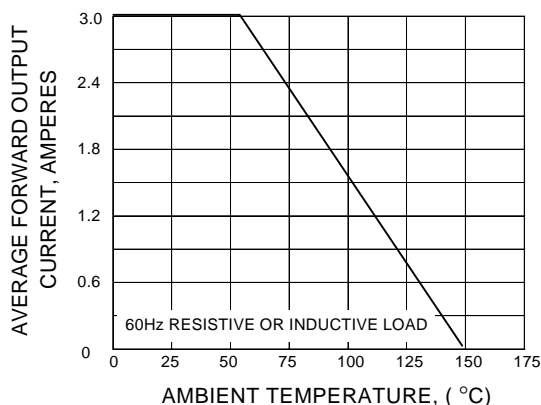
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



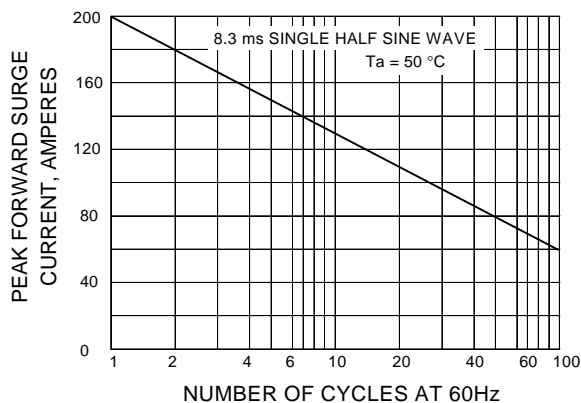
NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.  
2. Rise time = 10 ns max., Source Impedance = 50 ohms.  
3. All Resistors = Non-inductive Types.



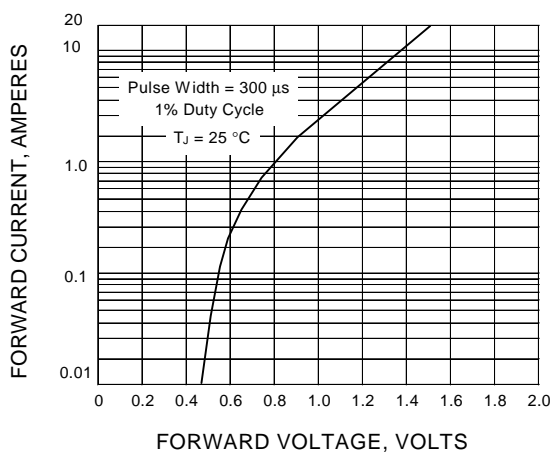
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

