

# SRN3 - SRN7

## SURFACE MOUNT FAST RECOVERY RECTIFIERS

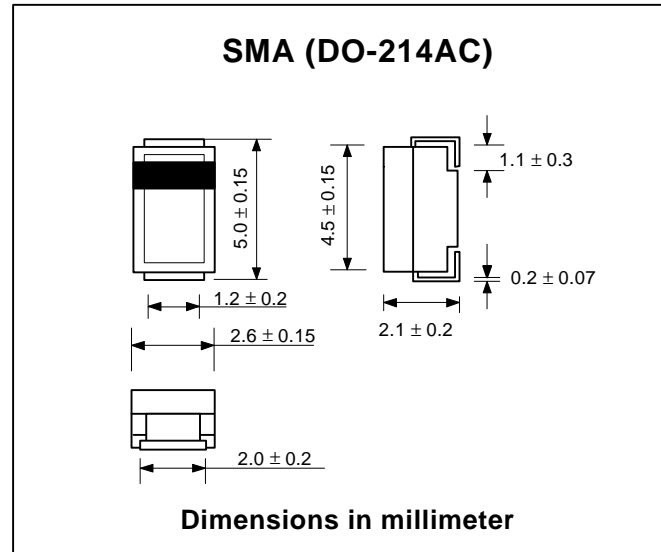
**PRV : 50 - 600 Volts**  
**Io : 1.0 Ampere**

### FEATURES :

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

### MECHANICAL DATA :

- \* Case : SMA Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.067 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%.

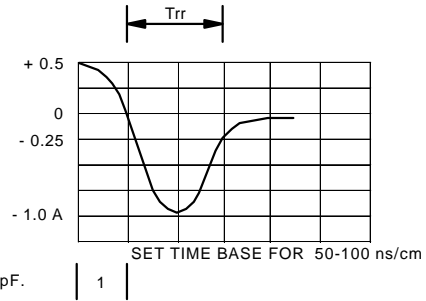
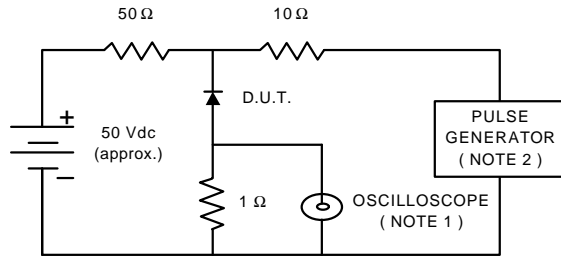
RATING	SYMBOL	SRN3	SRN4	SRN5	SRN6	SRN7	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Current Ta = 50 °C	IF(AV)	1.0					A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	30					A
Maximum Peak Forward Voltage at IF = 1.0 A	VF	1.2					V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	5					μA
	IR(H)	50					μA
Maximum Reverse Recovery Time (Note 1)	Trr	150					ns
Typical Junction Capacitance (Note 2)	CJ	50					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

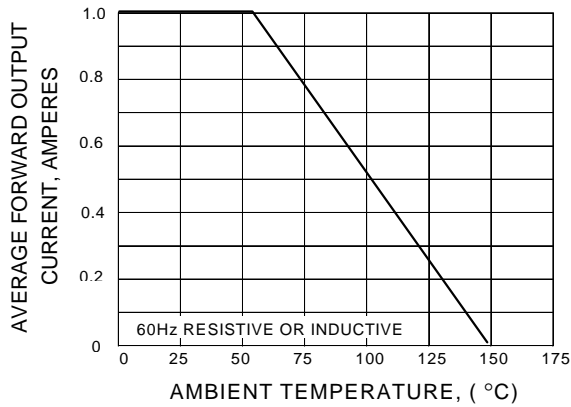
## RATING AND CHARACTERISTIC CURVES ( SRN3 - SRN7 )

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

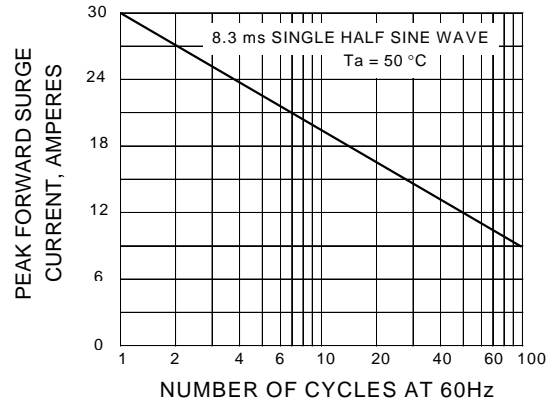


NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.  
2. Rise time = 10 ns max., Source Impedance = 50 ohms.  
3. All Resistors = Non-inductive Types.

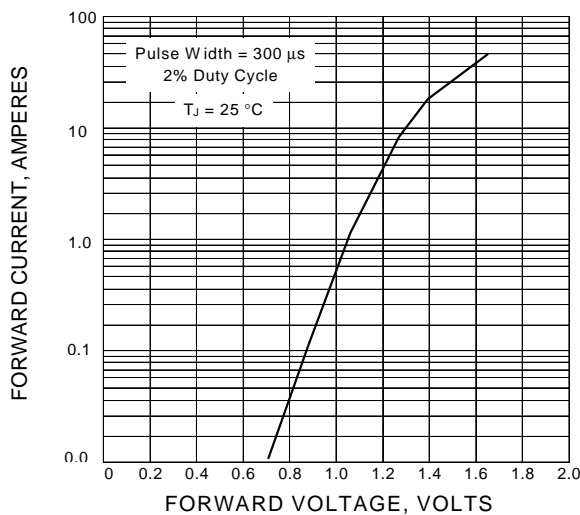
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

