

# SRN3 - SRN7

## SURFACE MOUNT FAST RECOVERY RECTIFIERS

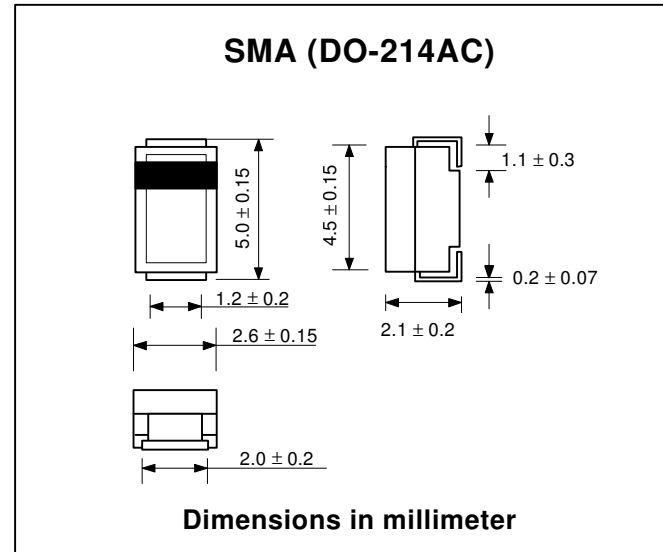
**PRV : 50 - 600 Volts**  
**Io : 1.0 Ampere**

### 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

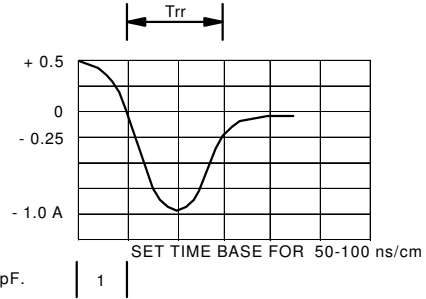
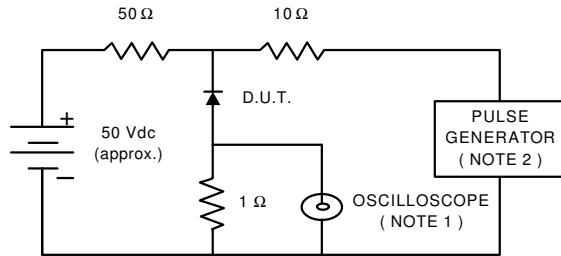
#### Notes :

( 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

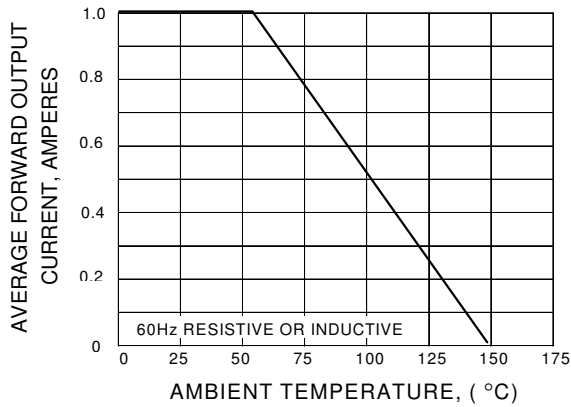


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

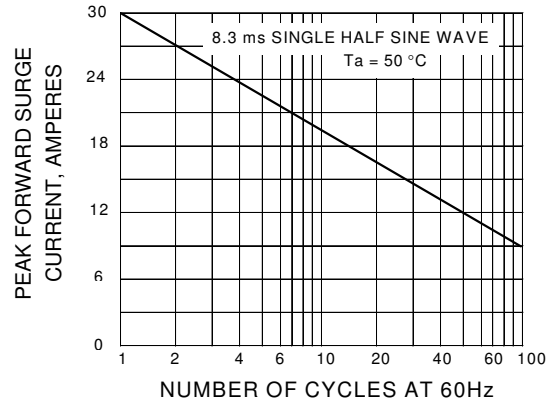


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

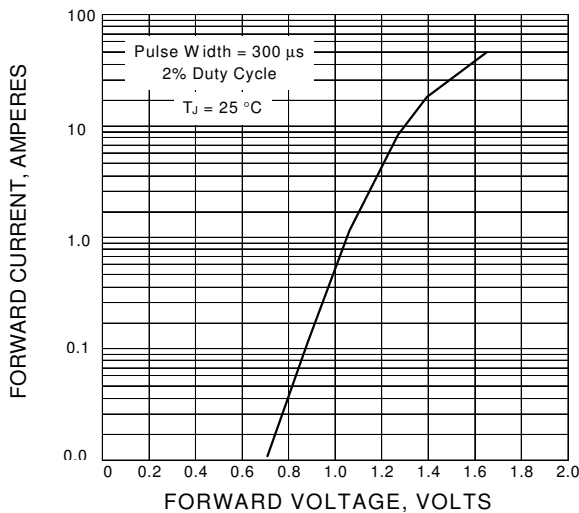


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

