

# S01R

**PRV : 2000 V**

**Io : 100 mA**

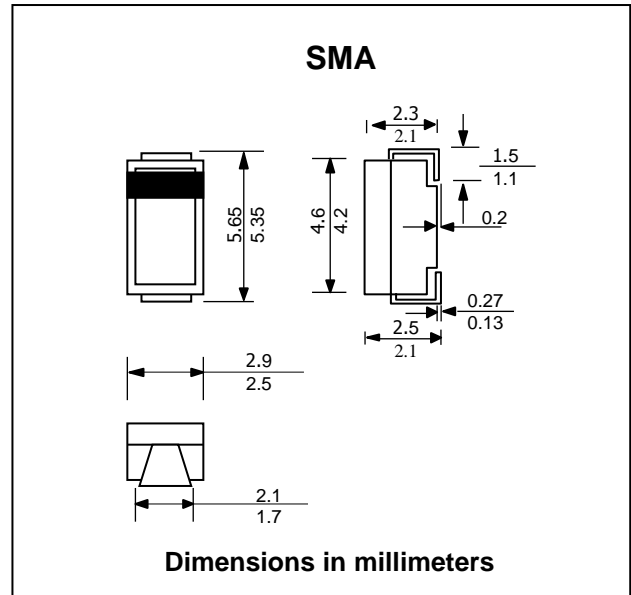
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Super fast recovery time
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : SMA Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.060 gram (Approximately)

## HIGH VOLTAGE SUPER FAST RECTIFIERS



## 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	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	2000	V
Maximum RMS Voltage	$V_{RMS}$	1400	V
Maximum DC Blocking Voltage	$V_{DC}$	2000	V
Maximum Average Forward Current $T_a = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	100	mA
Maximum Peak Forward Surge Current 8.3 ms. Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	30	A
Maximum Peak Forward Voltage at $I_F = 100\text{ mA}$	$V_F$	8	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10	$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	35	ns
Typical Junction Capacitance ( Note 2 )	$C_J$	50	pF
Operating Junction Temperature Range	$T_J$	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150	$^\circ\text{C}$

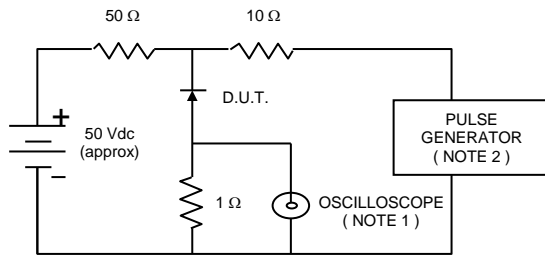
### Notes :

(1) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0  $V_{DC}$

## RATING AND CHARACTERISTIC CURVES ( S01R )

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.

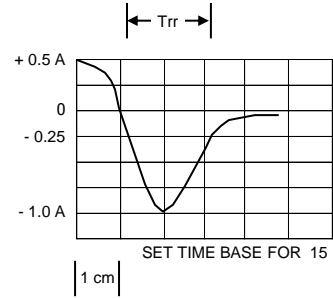


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

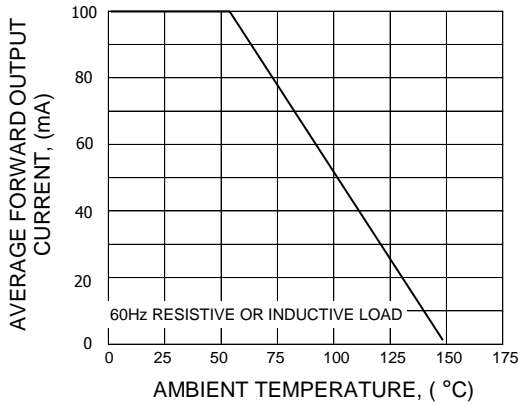


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

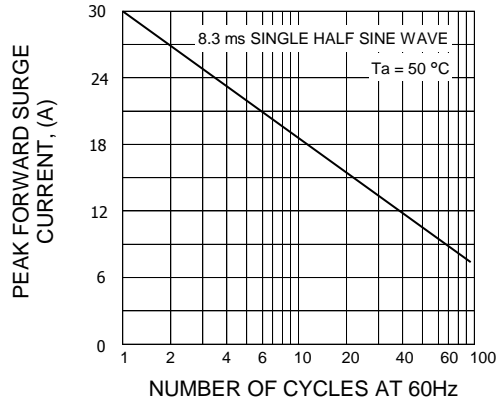


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

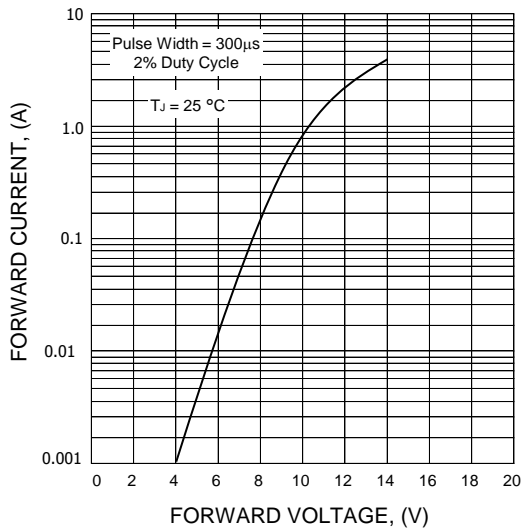


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

