

# S1T

## SURFACE MOUNT HIGH VOLTAGE RECTIFIER

**PRV : 3000 Volts**

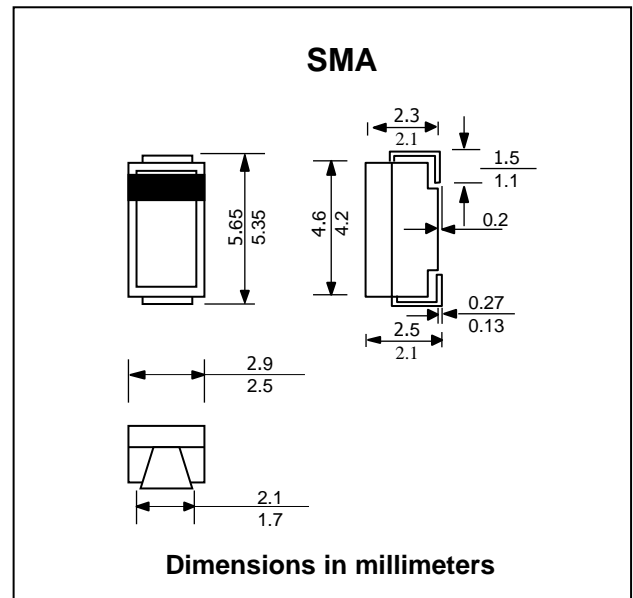
**Io : 1.0 Ampere**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* 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)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

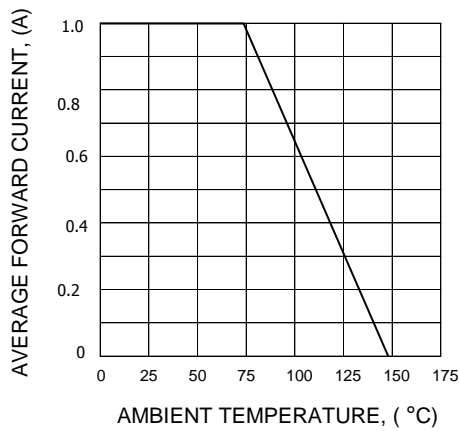
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

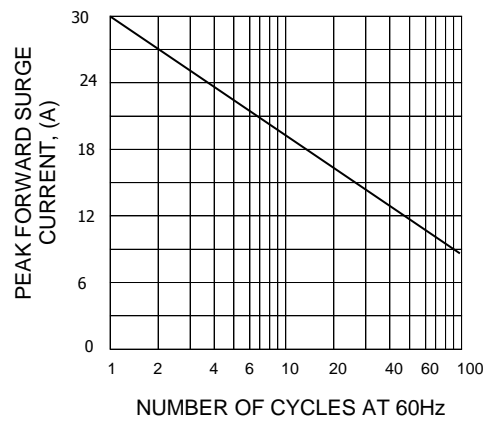
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	3000	V
Maximum RMS Voltage	$V_{RMS}$	2100	V
Maximum DC Blocking Voltage	$V_{DC}$	3000	V
Maximum Average Forward Current $T_a = 75\text{ }^\circ\text{C}$	$I_F$	1.0	A
Maximum Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	30	A
Maximum Instantaneous Forward Voltage at $I_F = 1.0\text{ A}$ .	$V_F$	3.0	V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$	$I_R$	5.0	$\mu\text{A}$
at rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_{R(H)}$	50	$\mu\text{A}$
Operating Junction Temperature Range	$T_J$	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150	$^\circ\text{C}$

## RATING AND CHARACTERISTIC CURVES ( S1T )

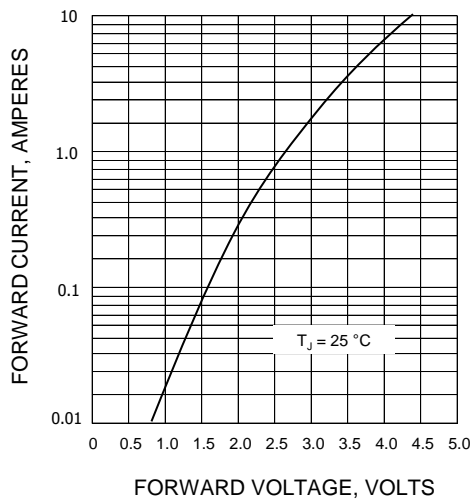
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

