

# SMN1A - SMN1M

**PRV : 50 - 1000 Volts**  
**Io : 1.0 Ampere**

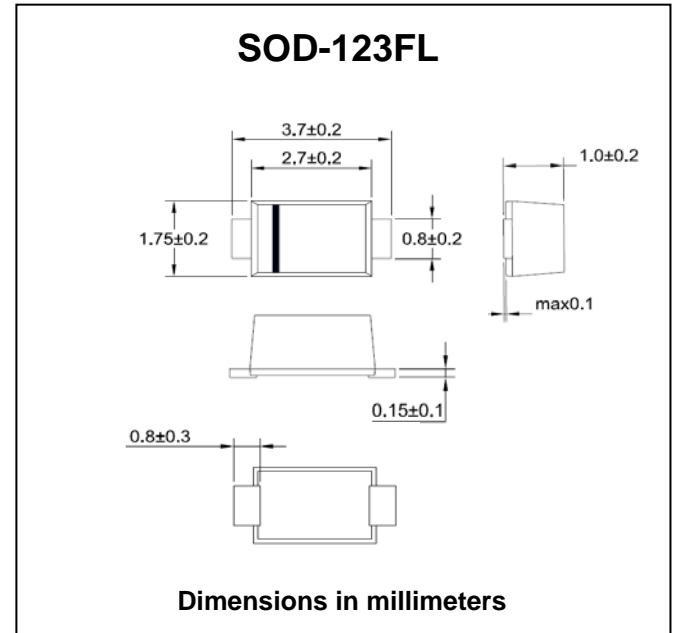
## FEATURES :

- \* Glass passivated junction chip
- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case: JEDEC SOD-123FL, molded plastic over passivated chip
- \* Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- \* Polarity: Color band denotes cathode end
- \* Mounting position : Any
- \* Weight: 0.02 gram (Approximate)

# GLASS PASSIVATED JUNCTION SILICON SURFACE MOUNT



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	SMN1A	SMN1B	SMN1D	SMN1G	SMN1J	SMN1K	SMN1M	UNIT
Marking		NA	NB	ND	NG	NJ	NK	NM	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_a = 75\text{ }^\circ\text{C}$	$I_{F(AV)}$				1.0				A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$				30				A
Maximum Forward Voltage at $I_F = 1.0\text{ Amp.}$	$V_F$				1.1				V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	$I_R$				5.0				$\mu\text{A}$
	$I_{R(H)}$				50				$\mu\text{A}$
Typical Junction Capacitance (Note1)	$C_J$				8.0				pF
Operation Junction Temperature Range	$T_J$				- 55 to + 150				$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$				- 55 to + 150				$^\circ\text{C}$

Note : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc.

## RATING AND CHARACTERISTIC CURVES ( SMN1A - SMN1M )

FIG.1 - DERATING CURVE CURRENT

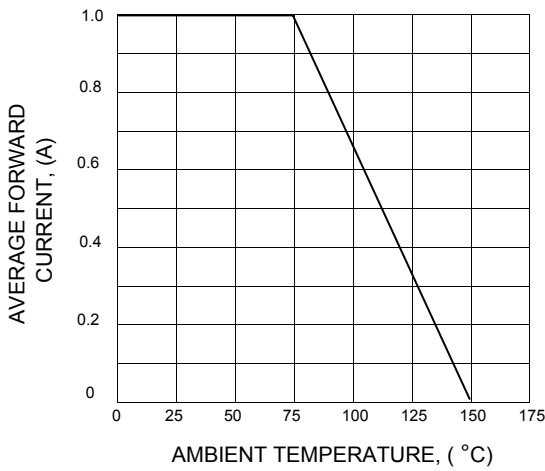


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

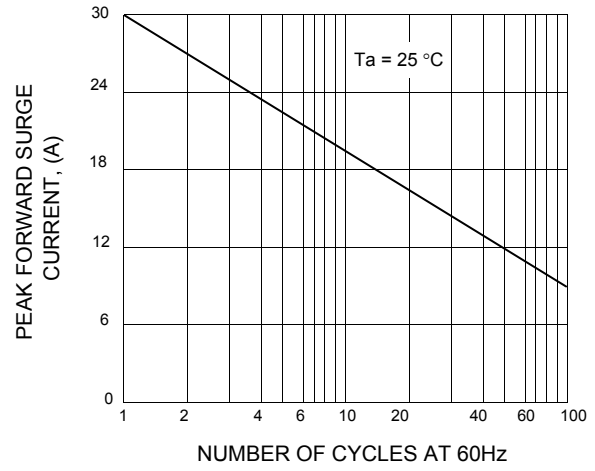


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

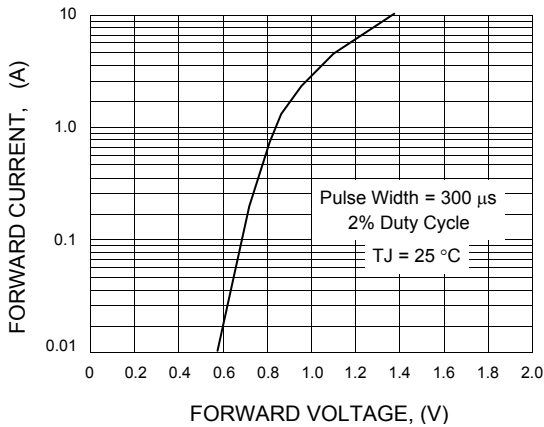


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

