

# SM4001 - SM4007

## SURFACE MOUNT

## GLASS PASSIVATED JUNCTION

**PRV : 50 - 1000 Volts**

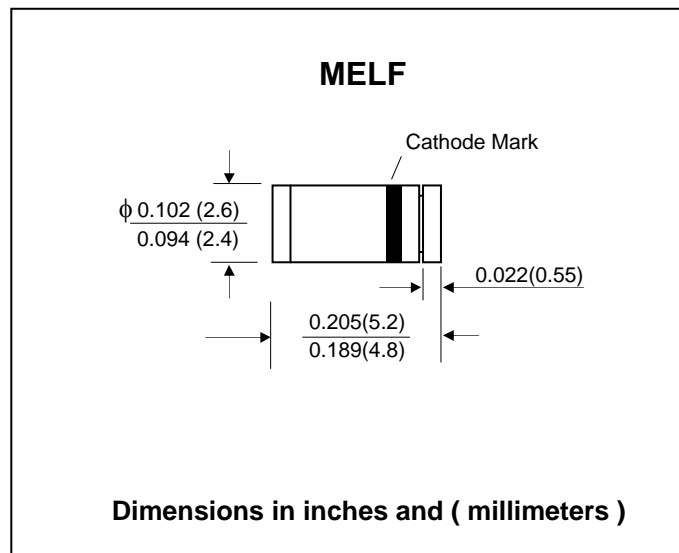
**Io : 1.0 Ampere**

### FEATURES :

- \* Glass Passivated Junction
- \* High Current Capability
- \* Low Forward voltage Drop
- \* High Reliability and Low Leakage
- \* For Surface Mount Application
- \* Plastic Material - UL Flammability Classification Rating 94 V-0
- \* Pb / RoHS Free

### Mechanical Data

- \* Case : MELF, Plastic
- \* Terminals : Solderable per MIL-STD-202, Method 208
- \* Polarity : Color band
- \* Approx Weight : 0.25 grams
- \* Mounting Position : Any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Single phase, half wave, 60 Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

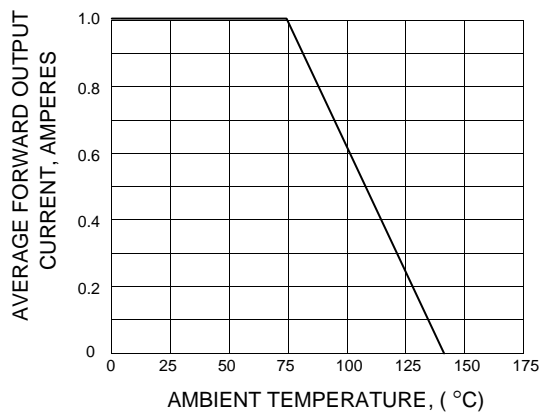
RATING	SYMBOL	SM4001	SM4002	SM4003	SM4004	SM4005	SM4006	SM4007	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_R$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	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 $I_F = 1.0$ A.	$V_F$	1.1							V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 125^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
		50							$\mu\text{A}$
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Typical Junction Capacitance (Note1)	$C_J$	15							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

### Note :

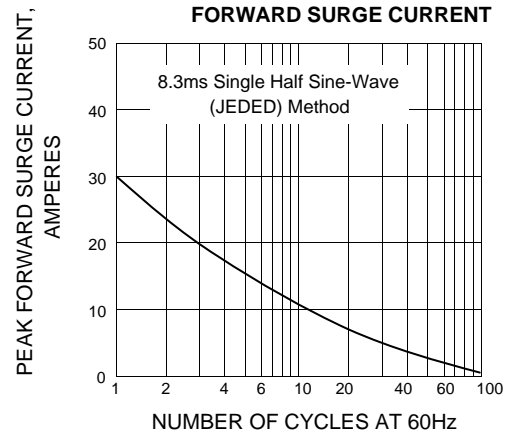
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC

## RATING AND CHARACTERISTIC CURVES ( SM4001 - SM4007 )

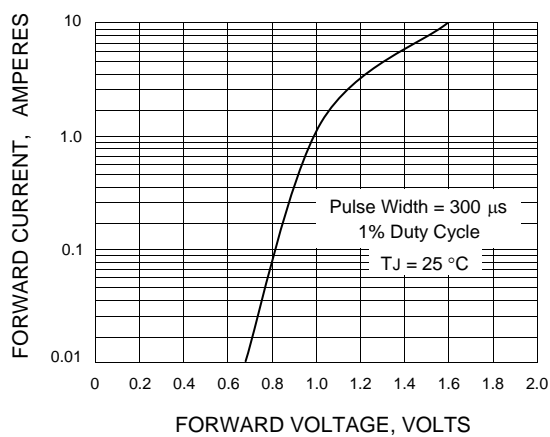
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

