

**SURFACE MOUNTED RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **1.0** Ampere

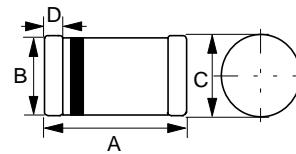
**FEATURES**

- Glass Passivated junction
- Low forward voltage
- Low forward voltage drop
- For surface mounted applications
- Plastic material has UL flammability classification 94V-0

**MECHANICAL DATA**

- Case : MELF, Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.005 ounces, 0.016 grams
- Mounting position: Any

**SM-1**



SM-1		
DIM.	MIN.	MAX.
A	4.80	5.20
B	2.20	2.50
C	2.30	2.70
D	0.40	0.60

All Dimensions in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SM4001	SM4002	SM4003	SM4004	SM4005	SM4006	SM4007	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75 °C	I(AV)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I <sub>FSM</sub>	30							A
Maximum forward Voltage at 1.0A DC	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 50							uA uA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	15							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	50							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2.Thermal Resistance junction to Ambient.

REV. 1, 24-May-2000

