

## Surface Mount Standard Recovery Glass Passivated Rectifiers

**(Pb)** Lead(Pb)-Free

### Features:

- \*For Surface Mount Application
- \*Glass Passivated Chip
- \*Low Reverse Leakage Current
- \*Low Forward Voltage Drop And High Current Capability
- \*Plastic Material Has UL Flammability Classification 94V-0

### Mechanical Data

- \*Case : Molded Plastic
- \*Polarity :Indicated by cathode band
- \*Weight : 0.005 Ounce ,0.016 grams

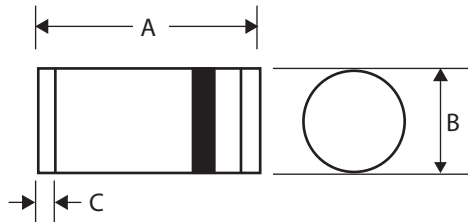
**REVERSE VOLTAGE  
50 TO 1000 VOLTS  
FORWARD CURRENT  
1.0 AMPERE**



**MELF**

## MELF Outline Dimensions

Unit:mm



MELF		
Dim	Min	Max
A	4.80	5.20
B	2.40	2.67
C	0.46	0.60

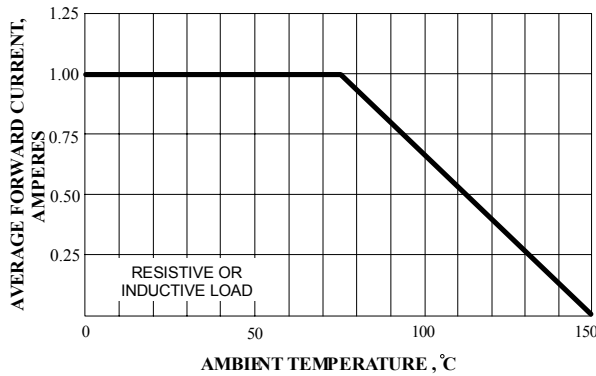
## Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.  
Single Phase Half Wave, 60Hz , Resistive or Inductive Load.  
For Capacitive Load, Derate Current by 20%.

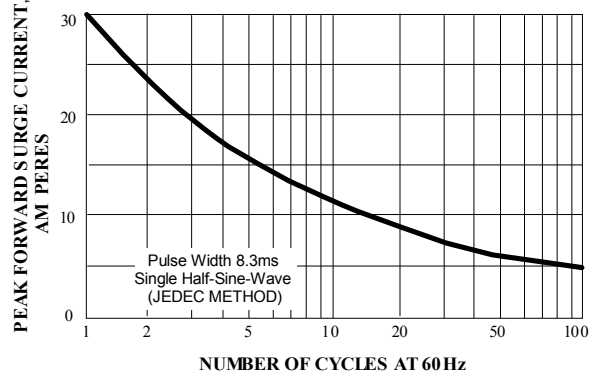
Characteristics	Symbol	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TC=75°C	IF(AV)	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	30							A
Maximum Instantaneous At 1.0A DC	VF	1.10							V
Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C	IR	5.0 50							uA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	15							P <sub>F</sub>
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>	50							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150							°C
Storage Temperature Range	TSTG	-55 to+150							°C

NOTES: 1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.  
2.Thermal Resistance Junction to case.

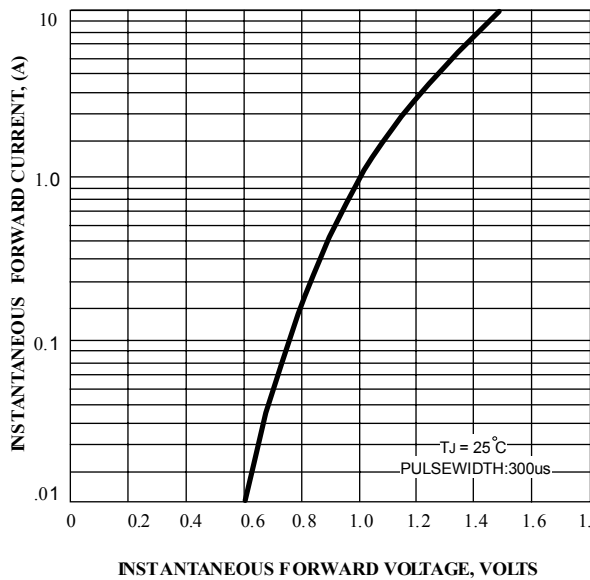
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**

