

# SM4001 thru SM4009

## **Surface Mount Rectifiers**

REVERSE VOLTAGE - 50 to 1600 Volts FORWARD CURRENT - 1.0 Ampere

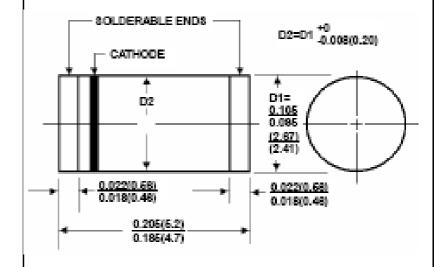
## **FEATURES**

- •For surface mount applications
- Glass passivated chip junction
- ■Low leakage current
- High forward surge capability
- High temperature soldering guaranteed:
   260°C/10 seconds at terminals

#### **MECHANICAL DATA**

- Case: Molded plastic body
- ●Terminals: Solder plated
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0046 ounce, 0.116 gram

# **DO-213AB(MELF LL-41)**



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	SM 4008	SM 4009	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	1300	1600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	910	1120	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	1300	1600	V
Maximum Average Forward Rectified Current (see fig.1)	<b>I</b> F(AV)	1.0								Α	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	IFSM	30							Α		
Maximum Instantaneous Forward Voltage at 1.0A	VF	1.1 1.2							V		
Maximum DC Reverse Current @Ta=25°C @Ta=125°C	lr	10 50							μA		
Maximum Full Load Reverse Current, Full Cycle Average at Ta= 75°C	IR(AV)	30							μΑ		
Typical Junction capacitance (Note1)	Cı	8								pF	
Typical Thermal Resistance (Note2)	Rөja	Reja 75 Rejt 30							°C/W		
(Note3)	Rөлт										
Operating Temperature Range	TJ	-50 to +150							$^{\circ}$ C		
Storage Temperature Range	Тsтg	-50 to +150							$^{\circ}\!\mathbb{C}$		

Note:1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

- 2. Thermal resistance from junction to ambient, 0.24 × 0.24" (6.0 × 6.0 mm) copper pads to each terminal
- 3. Thermal resistance from junction to terminal,0.24×0.24"(6.0×6.0mm)copper pads to each terminal

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REVERSE VOLTAGE, VOLTS

100

t, PULSE DURATION, sec



