

# Product data sheet

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# SM4001PL THRU SM4007PL

Semiconductor Compiance

#### FEATURES

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed: 250°C/10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

#### **MECHANICAL DATA**

Case: JEDEC SOD-123FL molded plastic body over passivated chip Terminals: Solderable per MIL-STD-750, Method 2026 Polarity: Color band denotes cathode end Mounting Position: Any Weight:0.0007 ounce, 0.02 grams

#### 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 current derate by 20%.

	P/N	SM4001 PL	SM4002 PL	PL	SM4004 PL	SM4005 PL	SM4006 PL	SM4007 PL	UNITS
	MARK	A1	A2	A3	A4	A5	A6	A7	
Maximum repetitive peak reverse voltage	Vrrm	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	Vrms	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	Vdc	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at Ta=65°C (NOTE 1)	l(AV)				1.0	I			Amp
Peak forward surge current									
8.3ms single half sine-wave superimposed on	IFSM				25.0				Amps
rated load (JEDEC Method) T∟=25℃									
Maximum instantaneous forward voltage at 1.0A	Vf				1.0				Volts
Maximum DC reverse current Ta=25°C		10.0							
at rated DC blocking voltage Ta=125°C	I <sub>R</sub> 50.0			μA					
Typical junction capacitance (NOTE 2)	Сл	4		pF					
Typical thermal resistance (NOTE 3)	Reja				180				K/W
Operating junction and storage temperature range	Tj,Tstg				-55 to +150				ç

Note: 1.Averaged over any 20ms period.

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. Thermal resistance from junction to ambient at 0.375" (9.5mm)lead length, P.C.B. mounted



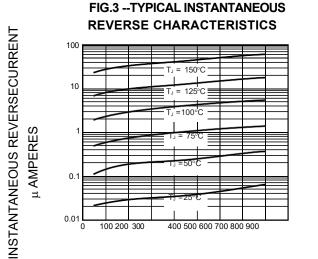
## FIG.1 -TYPICALFORWARDCHARACTERISTIC

INSTANTANEOUSFORWARDVOLTAGE,mV

#### CAPACITANCE, pF

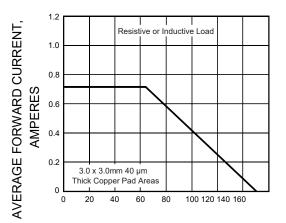
FIG.2 -- TYPICALJUNCTIONCAPACITANCE

REVERSE VOLTAGE, VOLTS



INSTANTANEOUS REVERSE VOLTAGE, V

#### FIG.4 -- FORWARDDERATINGCURVE

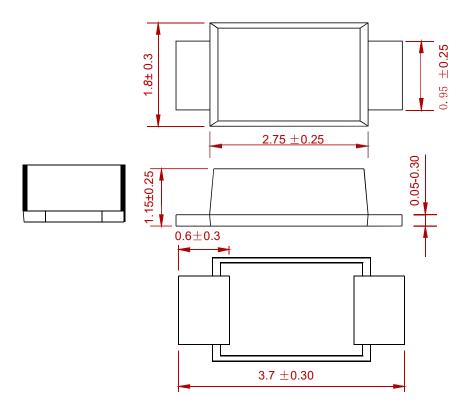


AMBIENT TEMPERATOR



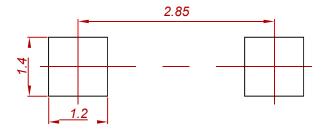
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# PACKAGE MECHANICAL DATA



Dimensions in millimeters

# Suggested Pad Layout



#### Note:

1.Controlling dimension:in millimeters.

2.General tolerance:±0.05mm.

3. The pad layout is for reference purposes only.

### **REEL SPECIFICATION**

P/N	PKG	QTY		
SM4001PL THRU SM4007PL	SOD-123FL	3000		



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