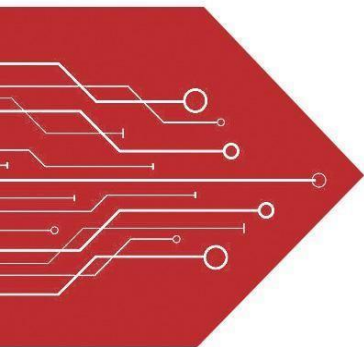


MSKSEMI

SEMICONDUCTOR



ESD



TVS



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MOV



GDT



PLED

Product data sheet

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	SM4003 PL	SM4004 PL	SM4005 PL	SM4006 PL	SM4007 PL	UNITS
	MARK	A1	A2	A3	A4	A5	A6	A7	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at TA=65°C (NOTE 1)	I _(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=25°C	I _{FSM}	25.0							Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=125°C	I _R	10.0 50.0							μA
Typical junction capacitance (NOTE 2)	C _J	4							pF
Typical thermal resistance (NOTE 3)	R _{θJA}	180							K/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°C

- 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 --TYPICAL FORWARD CHARACTERISTIC

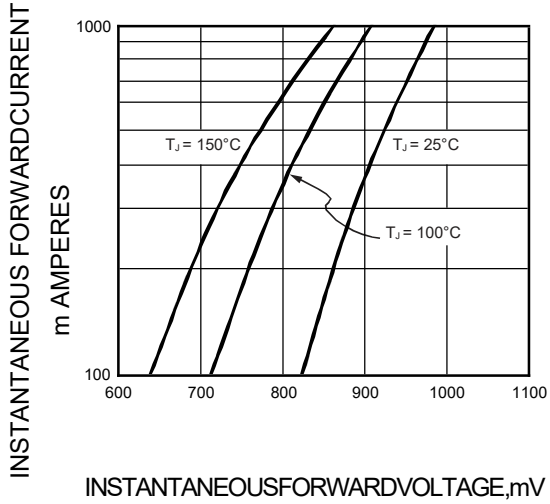


FIG.2 -- TYPICAL JUNCTION CAPACITANCE

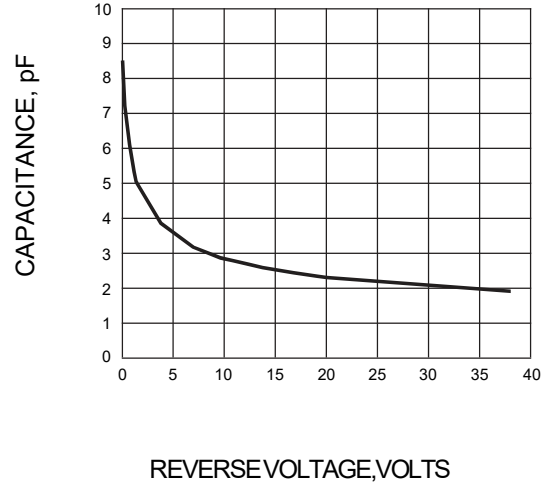


FIG.3 --TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

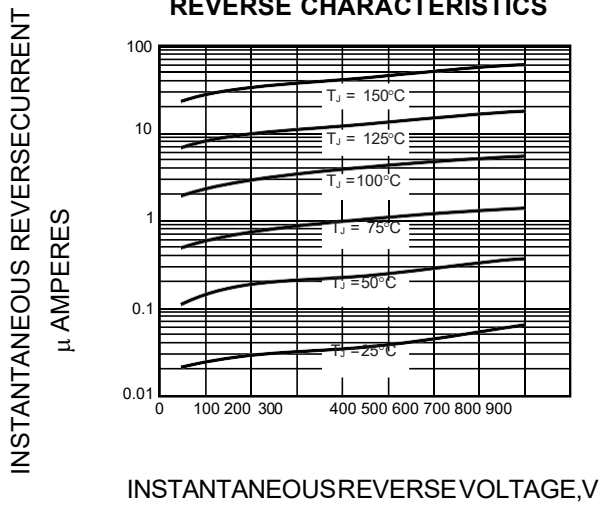
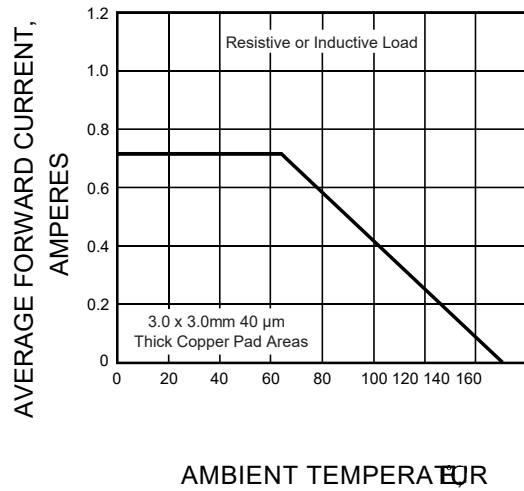
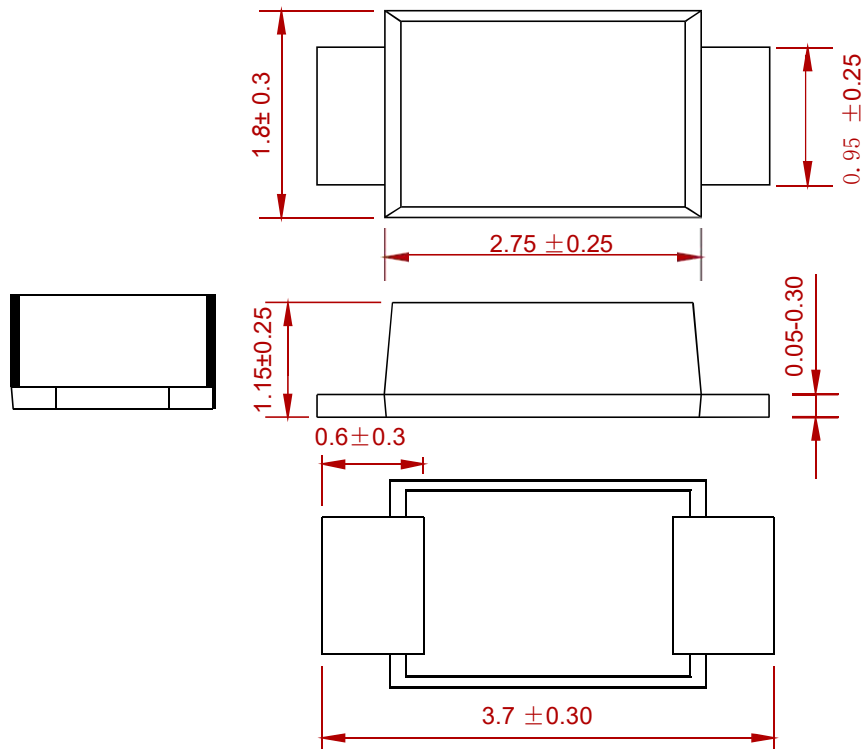


FIG.4 -- FORWARD DERATING CURVE

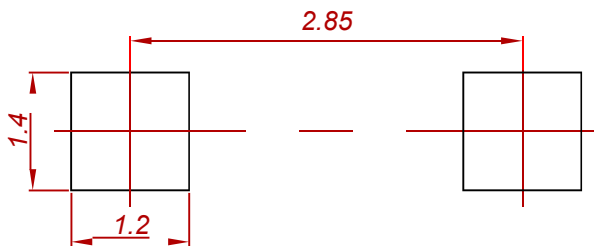


PACKAGE MECHANICAL DATA



Dimensions in millimeters

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
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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