

## PLASTIC SILICON RECTIFIERS

## SOD4001--SOD4007

### FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current



### MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solder perMIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.006 ounces, 0.02 gram

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	SOD4001	SOD4002	SOD4003	SOD4004	SOD4005	SOD4006	SOD4007	UNITS
Marking code		D1	D2	D3	D4	D5	D6	D7	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @TA=75°C	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30							A

### Thermal Characteristics

Characteristic	Symbol	SOD4001	SOD4002	SOD4003	SOD4004	SOD4005	SOD4006	SOD4007	UNITS
Typical junction capacitance measured at f=1MHZ, VR=4.0V	$C_J$	15							p F
Typical thermal resistance junction to lead	$R_{\theta JL}$	20							°C/W
Typical thermal resistance	$R_{\theta JC}$	31							°C/W
Operating temperature range	$T_J$	- 55 --- + 150							°C
Storage temperature range	$T_{STG}$	- 55 --- + 150							°C

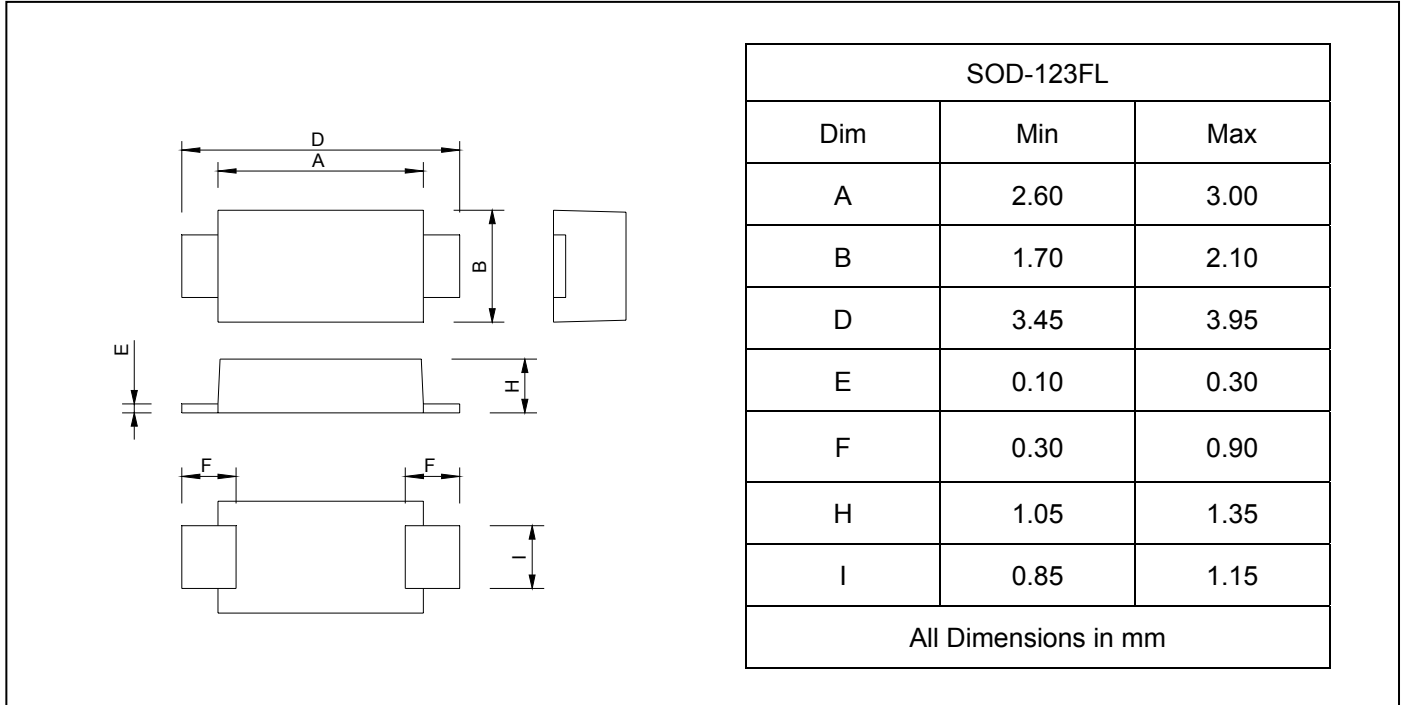
### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	SOD4001	SOD4002	SOD4003	SOD4004	SOD4005	SOD4006	SOD4007	UNITS
Maximum instantaneous forward voltage @IFM=1.0A	$V_F$	1.1							V
Maximum DC reverse current @TA=25°C at rated DC blocking voltage @TA=125°C	$I_R$	5.0							μ A
		50							

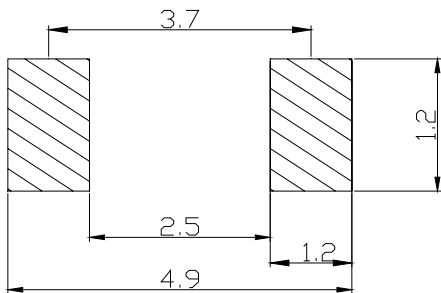
**PLASTIC SILICON RECTIFIERS**

**SOD4001--SOD4007**

**PACKAGE OUTLINE DIMENSIONS**



**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

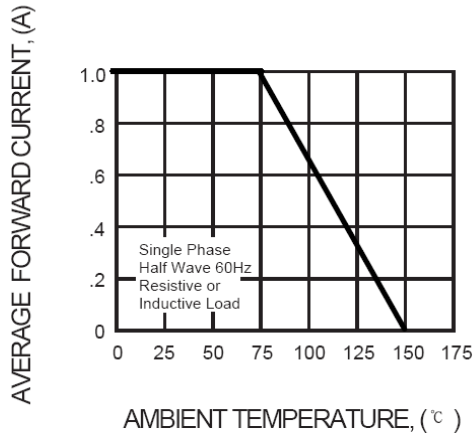
Device	Package	Shipping
SOD4001--SOD4007	SOD-123FL	10000/Tape&Reel



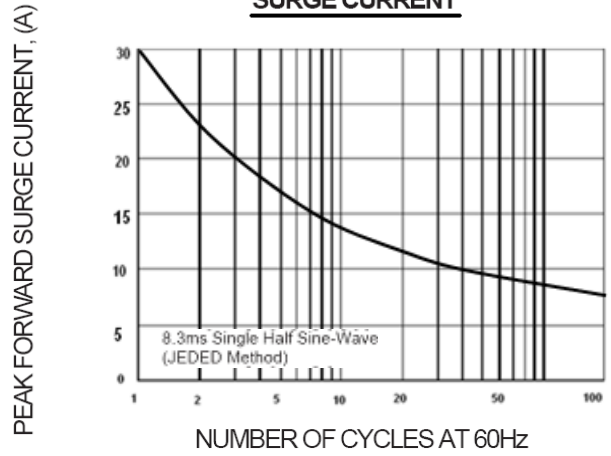
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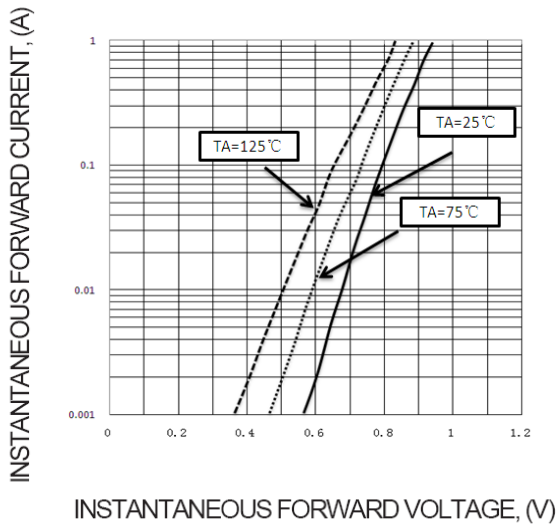
**FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



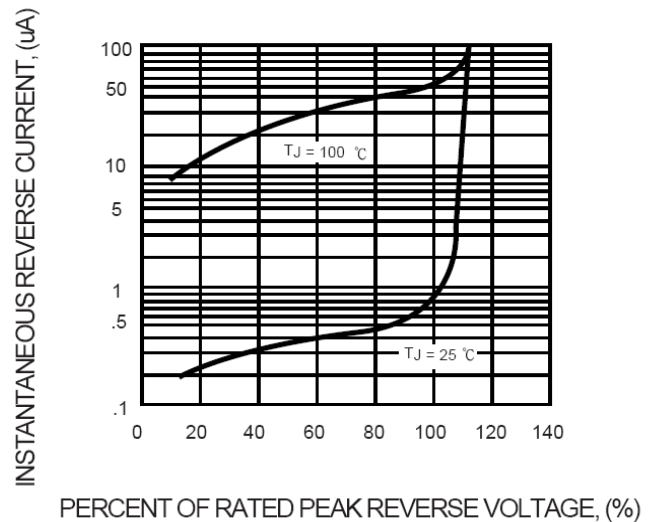
**FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

