

PLASTIC SILICON RECTIFIERS

SOD4001--SOD4007

FEATURES

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



Lead-free



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)

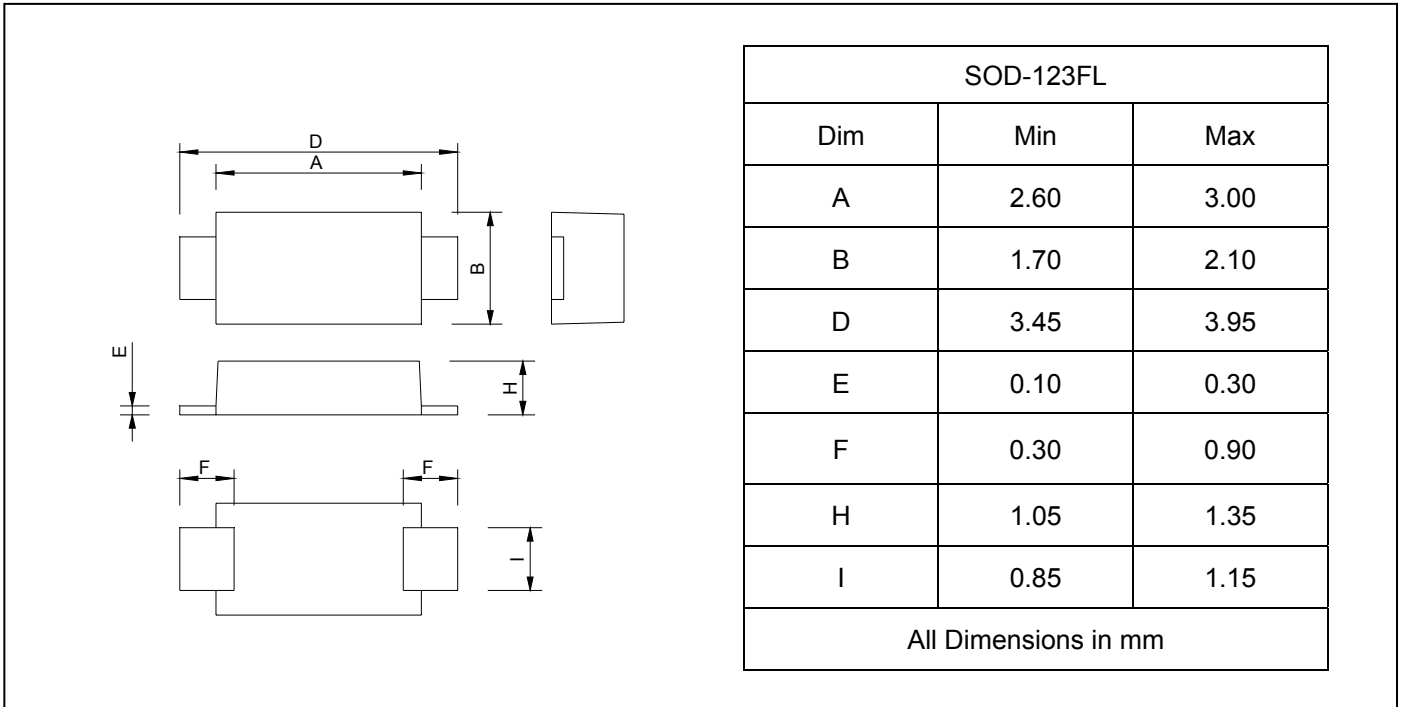
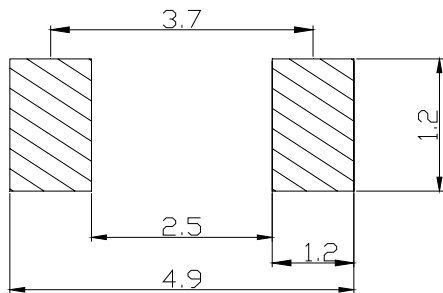
Characteristic	Symbol	SOD4001	SOD4002	SOD4003	SOD4004	SOD4005	SOD4006	SOD4007	UNITS
Marking code		D1	D2	D3	D4	D5	D6	D7	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	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

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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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SOD4001--SOD4007

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

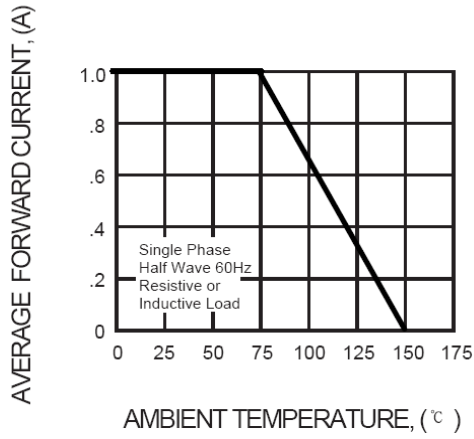


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

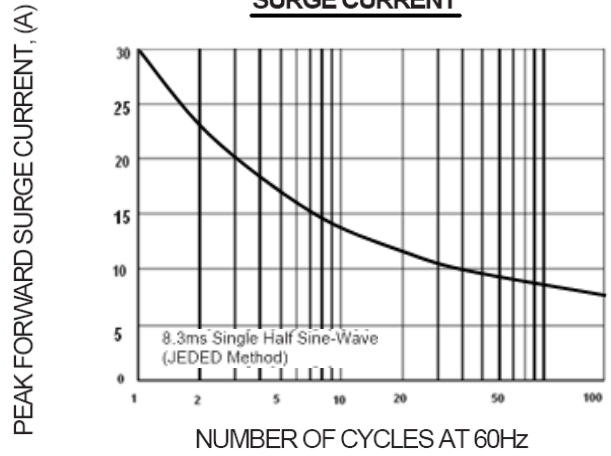


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

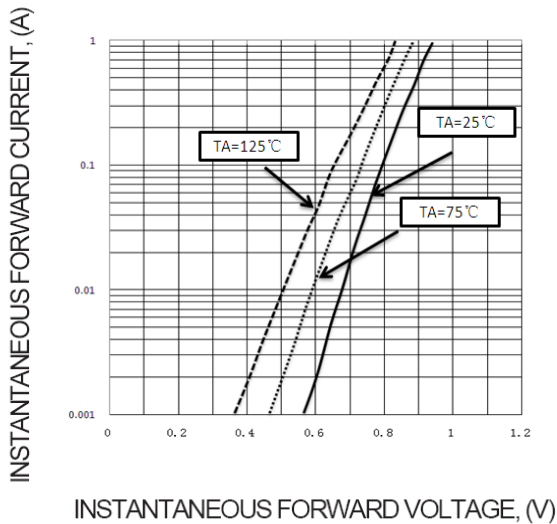


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

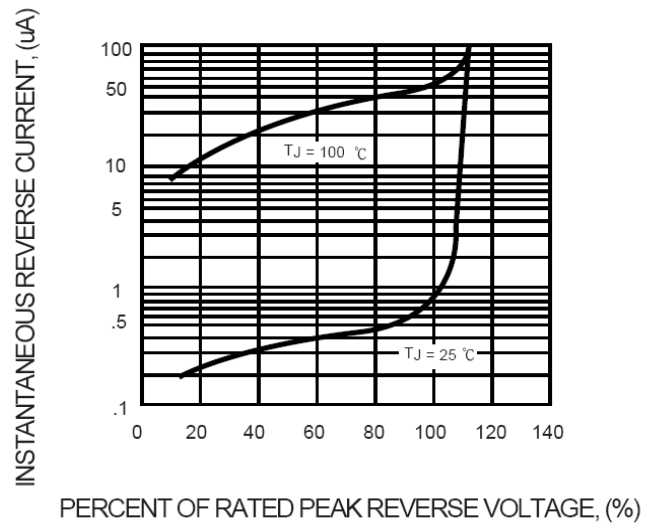


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

