

S1AL thru S1ML

SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

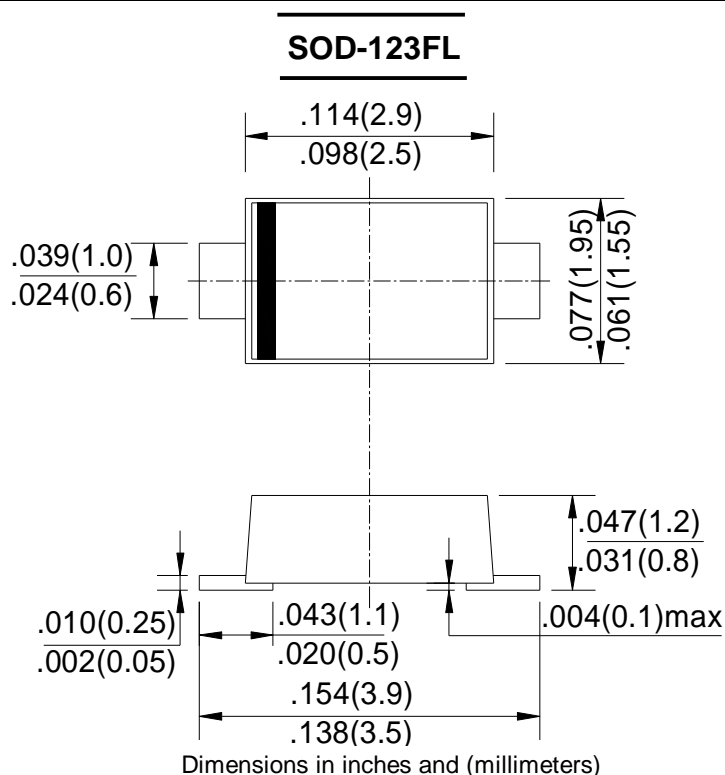
REVERSE VOLTAGE - 50 to 1000Volts
FORWARD CURRENT - 1.0 Ampere

FEATURES

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

MECHANICAL DATA

- Case: JEDEC SOD-123FL molded plastic body over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denotes cathode end
- Weight: 0.017gram



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	S1AL	S1BL	S1DL	S1GL	S1JL	S1KL	S1ML	UNIT
	MARKING	S1AL	S1BL	S1DL	S1GL	S1JL	S1KL	S1ML	
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 @ _{TL=100 °C}	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I _{FSM}	25							A
Maximum Forward Voltage at 1.0A DC	V _F	1.0							V
Maximum DC Reverse Current @ _{TA=25°C} at Rated DC Blocking Voltage @ _{TA=125°C}	I _R	5.0							μA
Thermal resistance from junction to ambient (Note1)	R _{θJL}	35							°C/W
Typical Thermal Resistance	R _{θJA}	150							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Note1: Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas (≈35 μm thick)

RATING AND CHARACTERISTIC CURVES

S1AL thru S1ML

FIG. 1 - FORWARD CURRENT DERATING CURVE

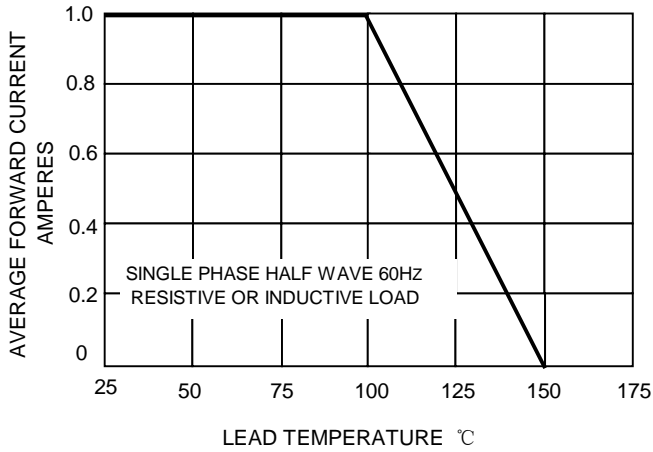


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

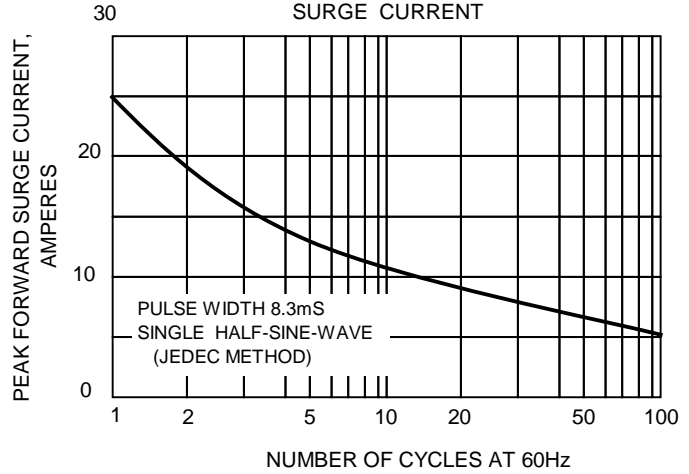


FIG.3-TYPICAL FORWARD CHARACTERISTICS

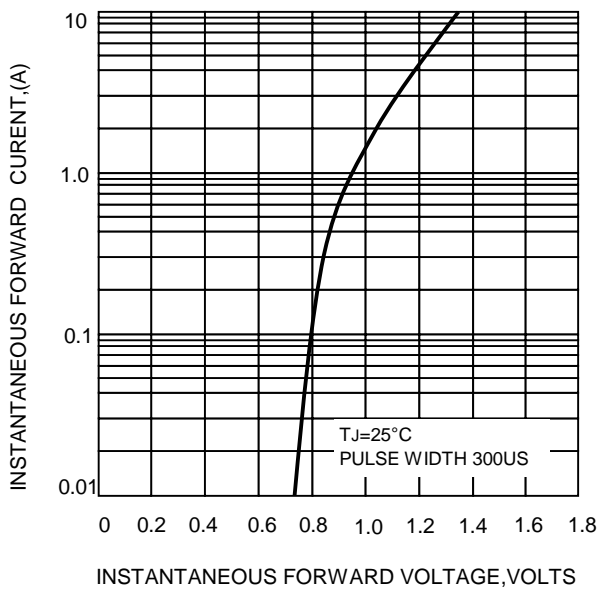


FIG.4-TYPICAL REVERSE CHARACTERISTICS

