

**SURFACE MOUNT FAST RECOVERY  
GLASS PASSIVATED RECTIFIERS**

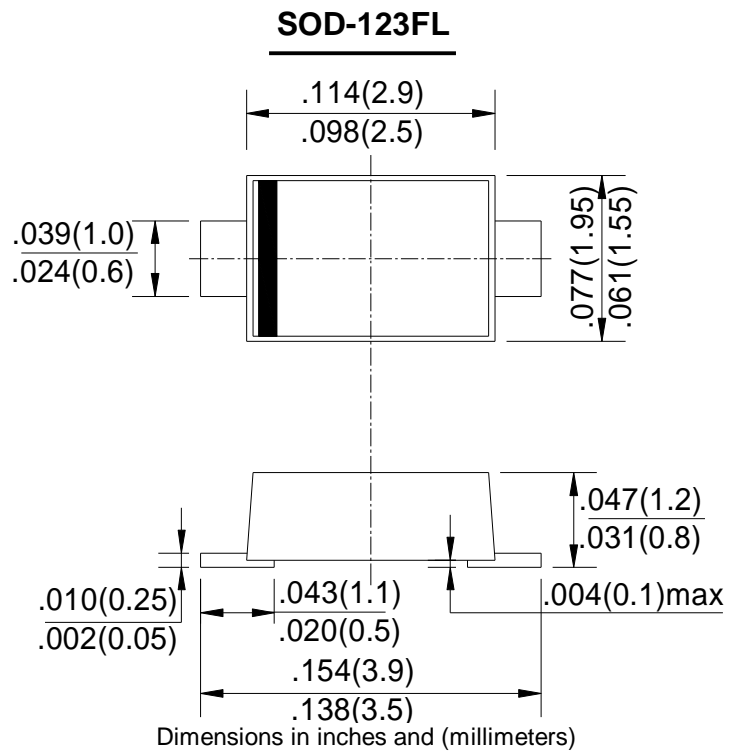
REVERSE VOLTAGE - 50 to 1000 Volts  
FORWARD CURRENT - 1.0 Ampere

**FEATURES**

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

**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	RS1AL	RS1BL	RS1DL	RS1GL	RS1JL	RS1KL	RS1ML	UNIT
	MARKING	R1AL	R1BL	R1DL	R1GL	R1JL	R1KL	R1ML	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75 °C	I <sub>(AV)</sub>	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	25							A
Peak Forward Voltage at 1.0A DC	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 100							μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	150			250		500		nS
Typical Junction Capacitance (Note2)	C <sub>J</sub>	9							pF
Typical Thermal Resistance (Note3)	R <sub>θJA</sub>	180							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES: 1.Measured with I<sub>F</sub>=0.5A,I<sub>R</sub>=1A,I<sub>RR</sub>=0.25A  
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC  
3.Thermal resistance junction to ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

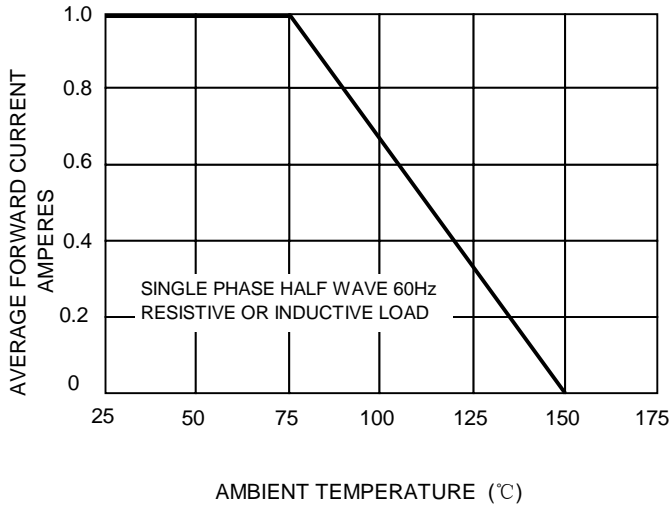


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

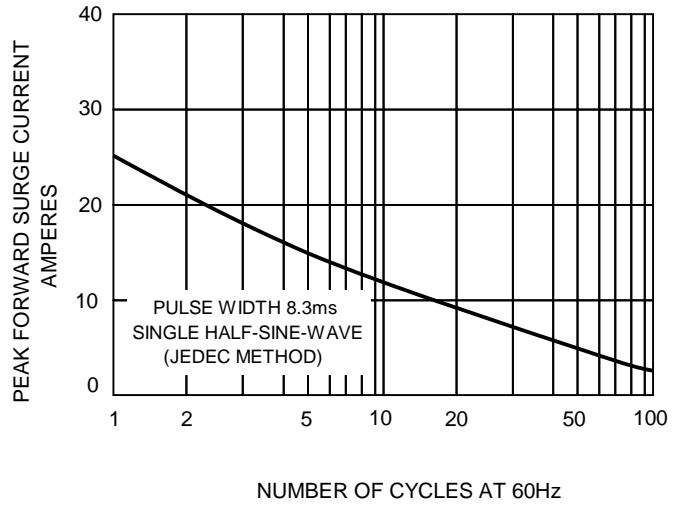


FIG.3 – TYPICAL JUNCTION CAPACITANCE

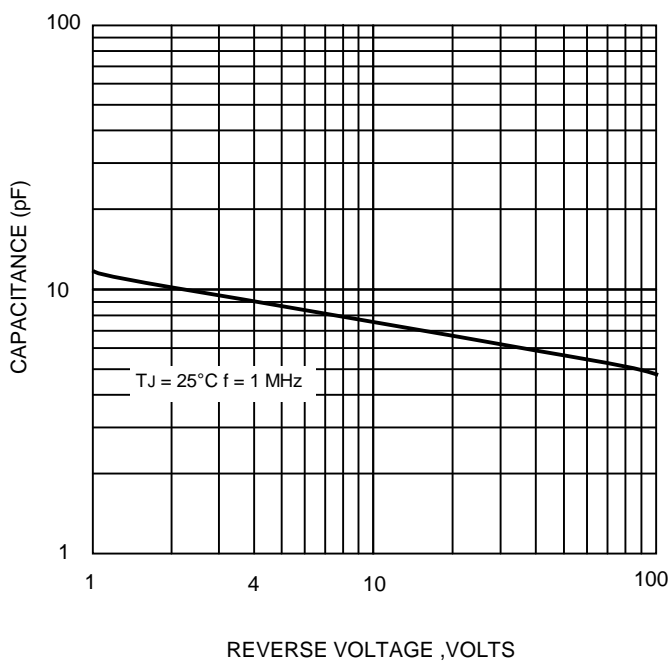


FIG.4-TYPICAL FORWARD CHARACTERISTICS

