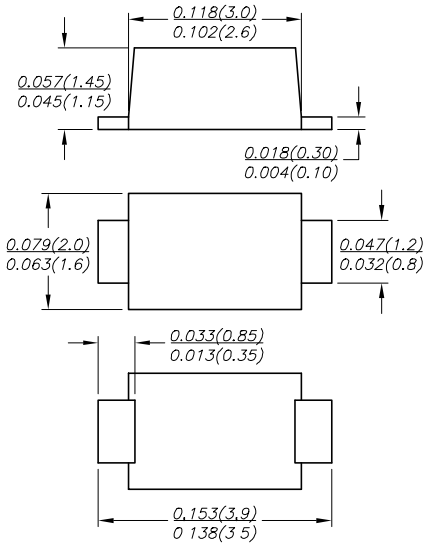
SUFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts
Forward Current -1.0 Ampere

SOD-123FL



Dimensions in inches and (millimeters)

Features

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed: 260℃/10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

Case: 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℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	DSR1A S1A	DSR1B S1B	DSR1D S1D	DSR1G S1G	DSR1J S1J	DSR1K S1K	DSR1M S1M	UNITS
Maximum repetitive 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 at T_L=100℃ (NOTE 1)	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	10.0 50.0							μA
Typical junction capacitance (NOTE 2)	C_J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	95							℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

Note: 1.Averaged over any 20ms period.
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.PCB mounted on 0.2*0.2" (5.0*5.0mm) coppeer pad area.

RATINGS AND CHARACTERISTIC CURVES DSR1A THRU DSR1M

FIG. 1- FORWARD CURRENT DERATING CURVE

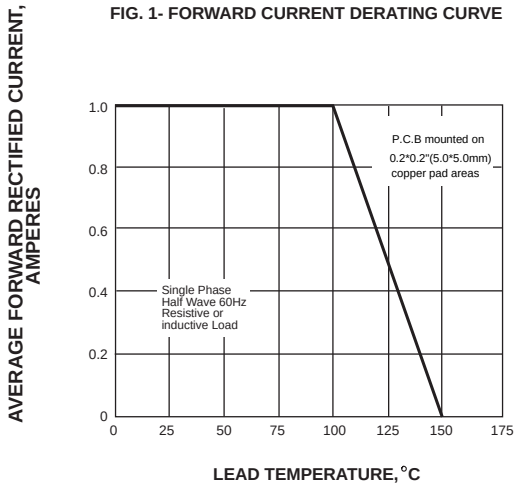


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

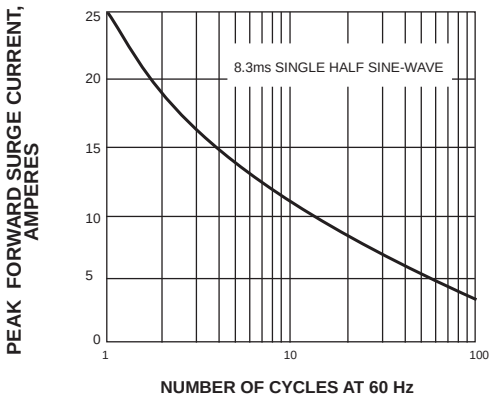


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

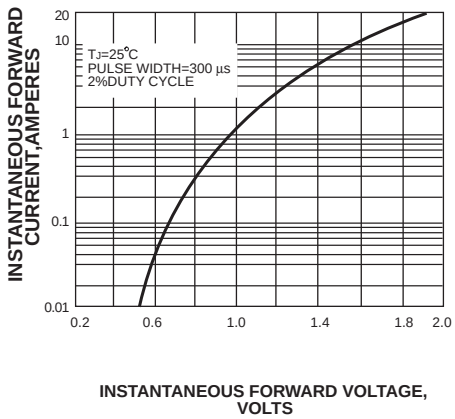


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

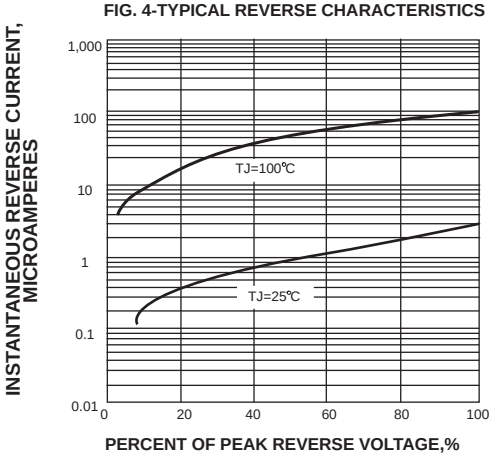


FIG. 5-TYPICAL JUNCTION CAPACITANCE