

1 A Silicon Rectifiers A1 THRU A7 50 to 1000 V 1.0 A

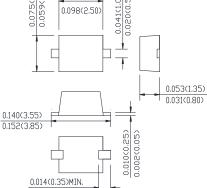
Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-O Utilizing Flame
- Retardant Epoxy Molding Compound.
- For surface mounted applications.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage current.

Mechanical Data

- Case : Molded plastic, JEDEC SOD-123FL
- Terminals : Solder plated, solderable per MIL-STD-750,
- Method 2026
- Polarity : Indicated by c athode band
- Mounting Position : Any
- Weight : 0.04 gram

SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

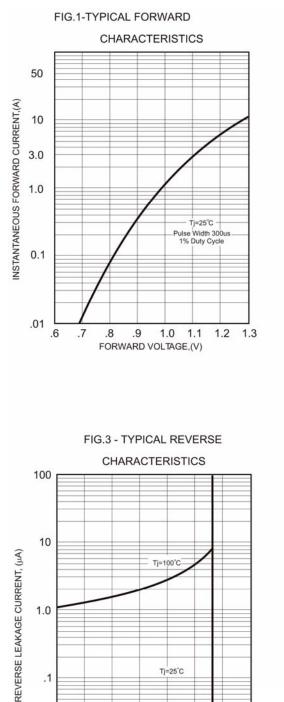
Ratings at 25° C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbols	A1	A2	A3	A4	A5	A6	A7	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TC=100 $^{\circ}\mathrm{C}$	I _(AV)	1.0							Amp
Peak Forward Surge Current,8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25							Amp
Maximum Forward Voltage at 1.0A and $T_A{=}25^\circ\!\mathbb{C}$	V _F	1.1							Volts
Maximum Reverse Current $T_A {=} 25^\circ\! \mathbb{C}$ at Rated DC Blocking Voltage $T_A {=} 125^\circ\! \mathbb{C}$	I _R	5.0 50							uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length@ TL=75 $^\circ\!\!\!C$		30							uA
Typical Junction Capacitance	CJ	15							pF
Typical Thermal Resistance	R₀JC	50							°C/W
Operating and Storage Temperature Range	T _J T _{stg}	-55 to +150							°C



FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

RATINGS AND CHARACTERISTIC CURVES (A1 THRU A7)



Tj=25°C

80

PERCENTAGE RATED PEAK REVERSE VOLTAGE

100 120 140

AVERAGE FORWARD CURRENT,(A) 1.2 1.0 0.8 Single Phase 0.6 Half Wave 60Hz Resistive Or Inductive Lo 0.4 0.2 0 200 20 40 80 100 120 160 180 0 60 140 AMBIENT TEMPERATURE (°C) FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT 50 PEAK FORWAARD SURGE CURRENT,(A) 40 30 8.3ms Single Half Tj=25°C 20 Sine Wave JEDEC method 10 0 1 5 10 50 100 NUMBER OF CYCLES AT 60Hz FIG.5-TYPICAL JUNCTION CAPACITANCE 35 30 JUNCTION CAPACITANCE, (pF) 25 20 15 10 5 0 ∟ .01 .05 .5 5 10 50 100 .1 1

REVERSE VOLTAGE,(V)

.1

.01

0

20

40

60