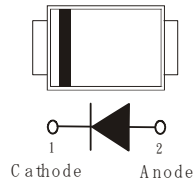


# A1 THRU A7 D1 THRU D7

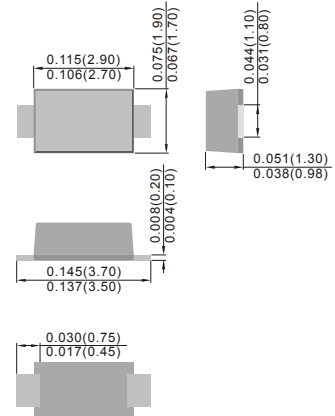
1.0AMP SILICON RECTIFIERS  
VOLTAGE RANGE 50 TO 1000 VOLTS

## FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- High surge current capability
- Small size simple installation



SOD123FL



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

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%

| TYPE NUMBER                                                                                            |       | D1          | D2  | D3  | D4  | D5  | D6  | D7   | UNITS |
|--------------------------------------------------------------------------------------------------------|-------|-------------|-----|-----|-----|-----|-----|------|-------|
|                                                                                                        |       | A1          | A2  | A3  | A4  | A5  | A6  | A7   |       |
| Maximum Recurrent Peak Reverse Voltage                                                                 | VRRM  | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V     |
| Maximum RMS Voltage                                                                                    | VRMS  | 35          | 70  | 140 | 280 | 420 | 560 | 700  | V     |
| Maximum DC Blocking Voltage                                                                            | VDC   | 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<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method) | IFSM  | 30          |     |     |     |     |     |      | A     |
| Maximum Forward Voltage at 1.0A DC                                                                     | VF    | 1.1         |     |     |     |     |     |      | V     |
| Maximum DC Reverse Current @TJ=25°C<br>at Rated DC Blocking Voltage @TJ=100°C                          | IR    | 5<br>50     |     |     |     |     |     |      | μA    |
| Typical Junction Capacitance (Note1)                                                                   | CJ    | 10          |     |     |     |     |     |      | pF    |
| Typical Thermal Resistance (Note2)                                                                     | RθJA  | 30          |     |     |     |     |     |      | °C/W  |
| Operating Temperature Range                                                                            | TJ    | -55 to +125 |     |     |     |     |     |      | °C    |
| Storage Temperature Range                                                                              | TSTG  | -55 to +125 |     |     |     |     |     |      | °C    |

NOTES:1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance junction of ambient.



# A1 THRU A7 D1 THRU D7

## RATING AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT  
DERATING CURVE

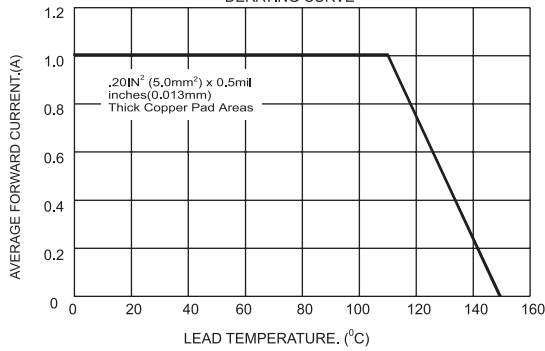


FIG.2-MAXIMUM NON-REPETITIVE FORWARD  
SURGE CURRENT

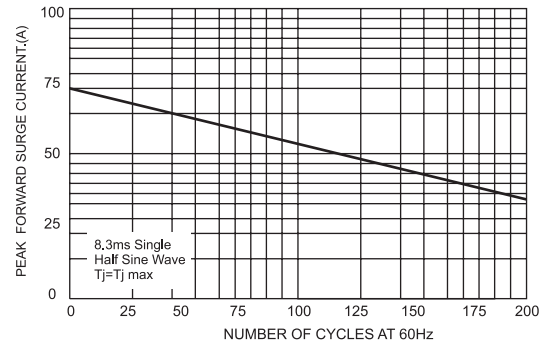


FIG.4-TYPICAL REVERSE CHARACTERISTICS

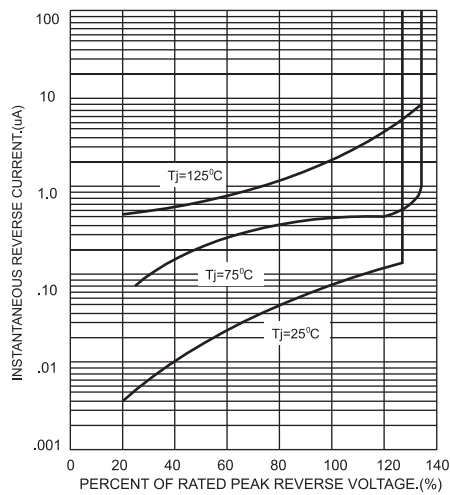


FIG.3-TYPICAL FORWARD CHARACTERISTICS

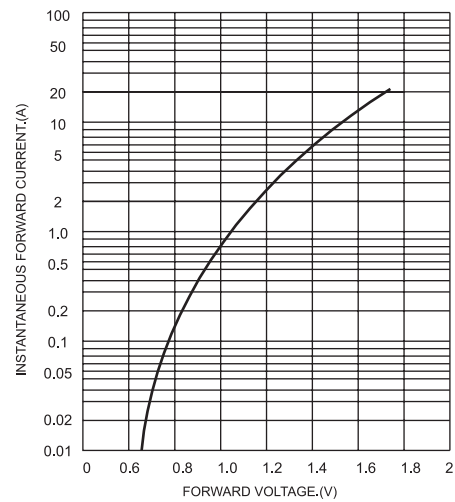


FIG.5-TYPICAL JUNCTION CAPACITANCE

