

General Purpose Silicon Rectifiers

■ Features

- Surface Mount General Purpose Silicon Rectifiers
- Reverse Voltage - 50 to 1000 V
- Forward Current: 1 A



■ Simplified outline(SOD-123FL)

■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | 1N4001W | 1N4002W | 1N4003W | 1N4004W | 1N4005W | 1N4006W | 1N4007W | Unit |
|--|--------|------------|---------|---------|---------|---------|---------|---------|------|
| Repetitive Peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Surge Peak reverse voltage | VRSM | 35 | 70 | 140 | 280 | 420 | 560 | 700 | |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | |
| Forward voltage @IF=1A | VF | 1.1 | | | | | | | A |
| Max.averaged fwd.current. @ Ta =65°C | IFAV | 1 | | | | | | | |
| Peak forward surge current | IFSM | 25 | | | | | | | |
| Maximum DC Reverse Current Ta=25°C Ta=125°C | IR | 5 | | | | | | | µA |
| | | 100 | | | | | | | |
| Typical Junction Capacitance *1 | Cj | 4 | | | | | | | pF |
| Thermal Resistance Junction to Ambient *2 | RθJA | 180 | | | | | | | °C/W |
| Junction temperature | Tj | 150 | | | | | | | °C |
| Storage temperature | Tstg | -55 to 150 | | | | | | | |

* 1 Measured at 1 MHz and applied reverse voltage of 4 V D.C

* 2 Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted

■ Marking

| NO. | 1N4001W | 1N4002W | 1N4003W | 1N4004W | 1N4005W | 1N4006W | 1N4007W |
|---------|---------|---------|---------|---------|---------|---------|---------|
| Marking | A1 | A2 | A3 | A4 | A5 | A6 | A7 |

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

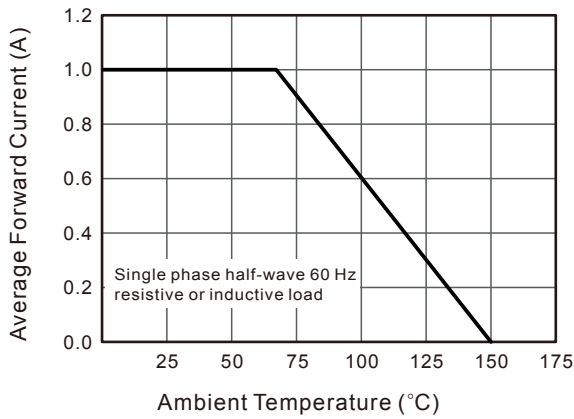


Fig.2 Typical Instaneous Reverse Characteristics

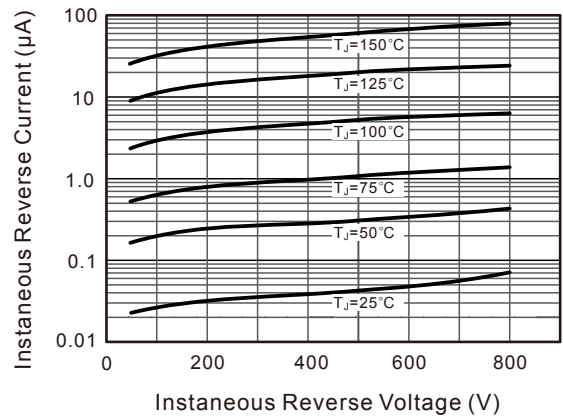


Fig.3 Typical Forward Characteristic

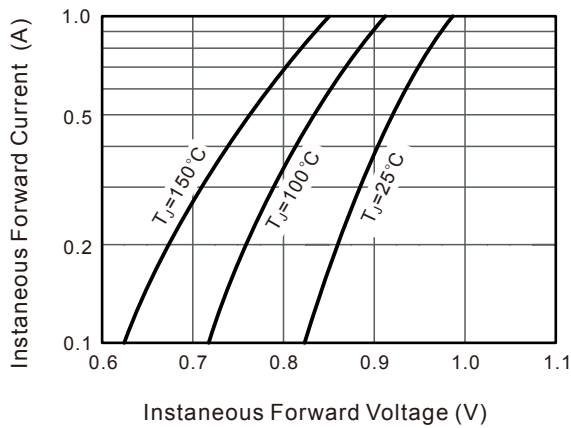
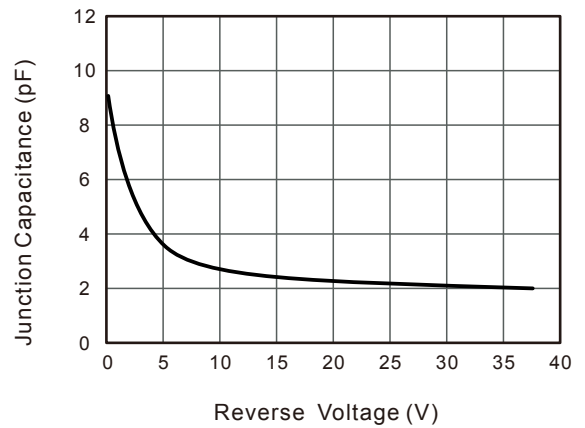
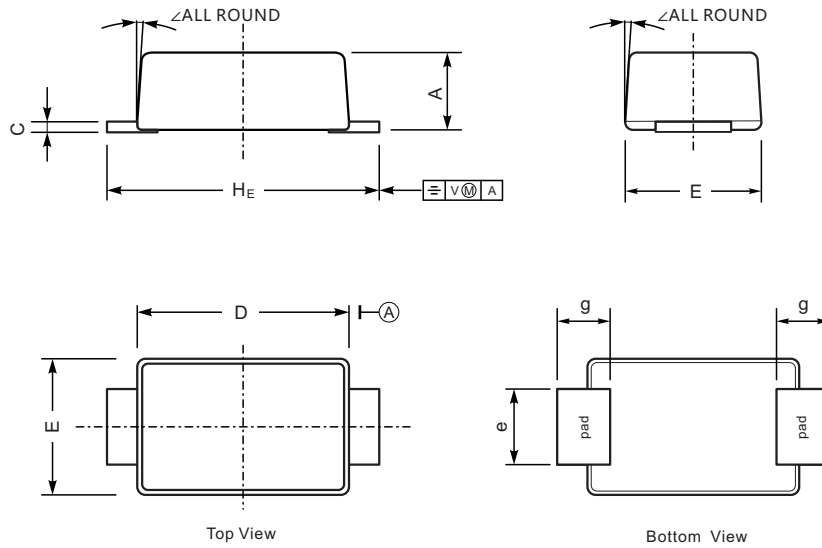


Fig.4 Typical Junction Capacitance



■ SOD-123FL



| UNIT | | A | C | D | E | e | g | H _E | ∠ |
|------|-----|-----|------|-----|-----|-----|-----|----------------|----|
| mm | max | 1.1 | 0.20 | 2.9 | 1.9 | 1.1 | 0.9 | 3.8 | 7° |
| | min | 0.9 | 0.12 | 2.6 | 1.7 | 0.8 | 0.7 | 3.5 | |
| mil | max | 43 | 7.9 | 114 | 75 | 43 | 35 | 150 | |
| | min | 35 | 4.7 | 102 | 67 | 31 | 28 | 138 | |

■ The recommended mounting pad size

