



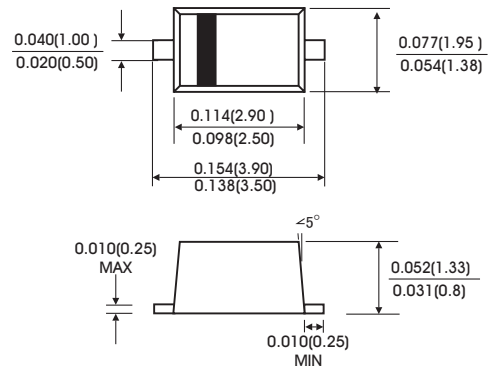
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 C/10 seconds at terminals, 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

MECHANICAL DATA

- Case: SOD-123FL molded plastic body
- Lead Finish: 100% Matte Sn (Tin)
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 11.7 mg(approximately)

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 ,resistive or inductive load. For capacitive load,derate by 20%.)

| | Symbols | 1N5817SF | 1N5818SF | 1N5819SF | Units |
|--|-----------------|-------------|----------|----------|-------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | Volts |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | Volts |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | Volts |
| Maximum non-repetitive peak reverse voltage | V_{RSM} | 24 | 36 | 48 | Volts |
| Maximum average forward rectified current | $I(AV)$ | 1.0 | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at $T_L=70^\circ C$ | I_{FSM} | 25.0 | | | Amps |
| Maximum instantaneous forward voltage at 1.0 A(note 1) | V_F | 0.450 | 0.550 | 0.600 | Volts |
| Maximum instantaneous forward voltage at 3.1 A(note 1) | V_F | 0.750 | 0.875 | 0.900 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | I_R | 0.2 | | | mA |
| | | 10.0 | | | |
| Typical junction capacitance(Note 3) | C_j | 110.0 | | | PF |
| Typical thermal resistance(Note 2) | $R_{\theta JA}$ | 82.0 | | | °C/W |
| | $R_{\theta JL}$ | 26.0 | | | |
| Operating junction and storage temperature range | T_J/T_{STG} | -65 to +150 | | | °C |

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance (from junction to ambient)Vertical P.C.B. mounted with 1 in. copper pad (Cu area 700 mm²).

3.Measured at 1.0MHz and reverse voltage of 4.0 volts



星合电子
XINGHE ELECTRONICS

1N5817SF THRU 1N5819SF

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage 20 to 40 Volts

Forward Current - 1.0Ampere

FIG. 1-FORWARD CURRENT DERATING CURVE

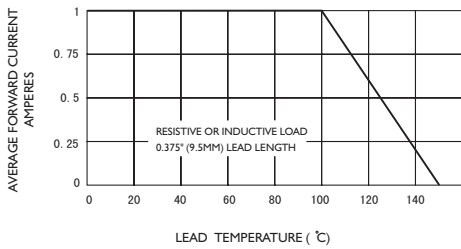


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

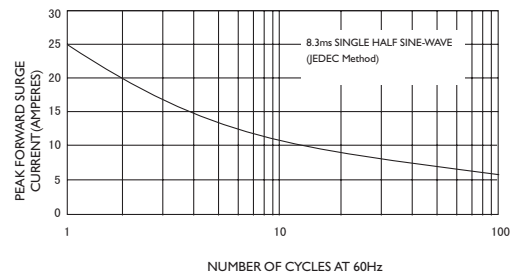


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

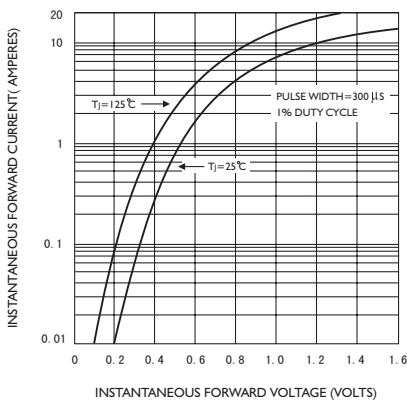


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

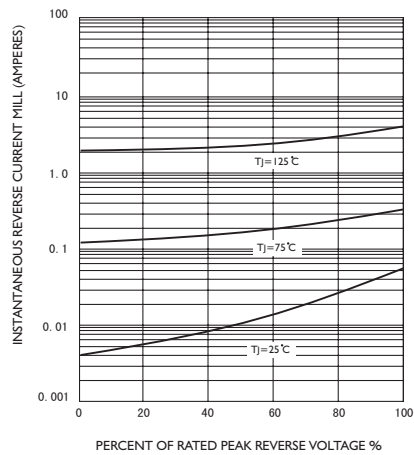


FIG. 5-TYPICAL JUNCTION CAPACITANCE

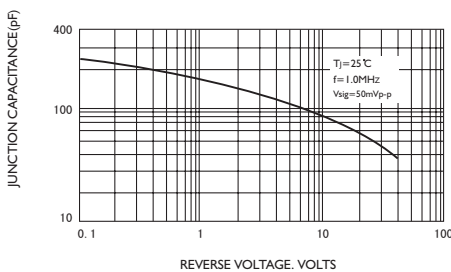


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

