



星合电子
XINGHE ELECTRONICS

1N5817SF THRU 1N5819SF

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage 20 to 40 Volts

Forward Current - 1.0Ampere

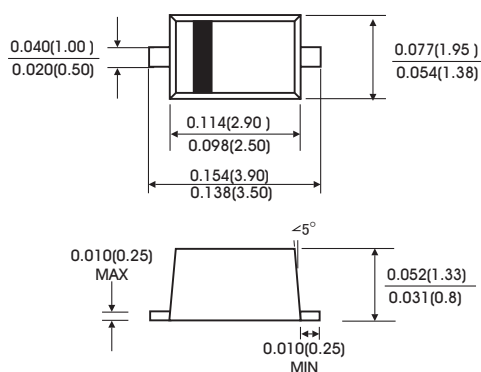
FEATURES

- 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		VRRM	20	30	40	Volts
Maximum RMS voltage		VRMS	14	21	28	Volts
Maximum DC blocking voltage		VDC	20	30	40	Volts
Maximum non-repetitive peak reverse voltage		VRSM	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 TL=70 °C		IFSM	25.0			Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)		VF	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1 A(note 1)		VF	0.750	0.875	0.900	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25 °C	IR	0.2			mA
	TA=100 °C		10.0			
Typical junction capacitance(Note 3)		CJ	110.0			pF
Typical thermal resistance(Note 2)		ROJA ROJL	82.0 26.0			°C/W
Operating junction and storage temperature range		TJTSTG	-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



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FIG.1-FORWARD CURRENT DERATING CURVE

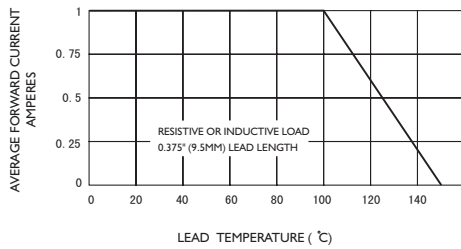


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

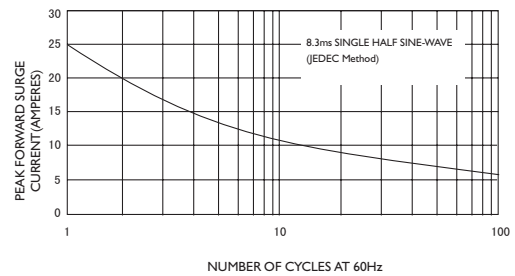


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

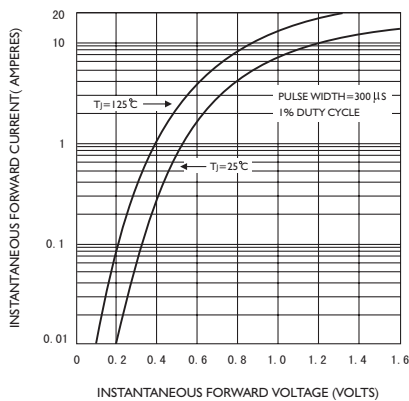


FIG.4-TYPICAL REVERSE CHARACTERISTICS

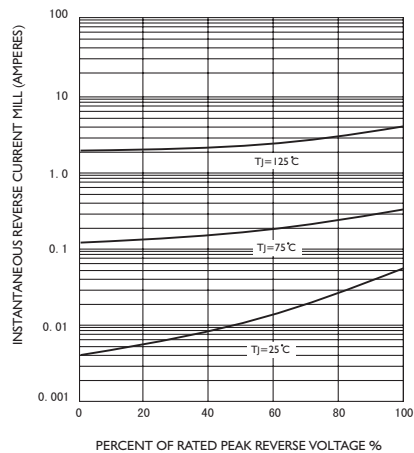


FIG.5-TYPICAL JUNCTION CAPACITANCE

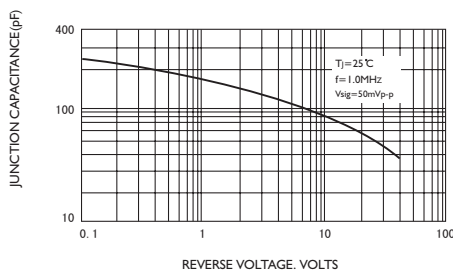


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

