星合电子
XINGHE ELECTRONICS

SR120SF THRU SR1100SF

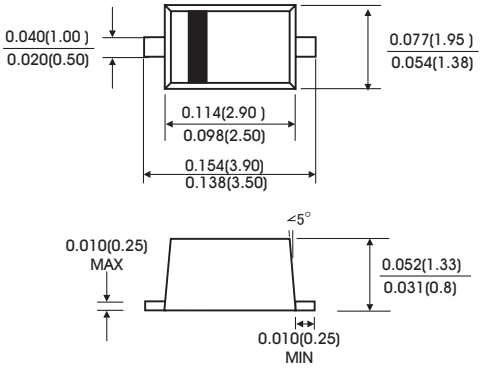
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 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:250 C/10 seconds at terminals, 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

SOD-123FL



Dimensions in inches and (millimeters)

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)

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	SR 120SF	SR 130SF	SR 140SF	SR 150SF	SR 160SF	SR 180SF	SR 1100SF	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	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)	I_{FSM}	40.0							Amps
Maximum instantaneous forward voltage at 1.0 A(Note 1)	V_F	0.55			0.70		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A =25℃	I_R	0.2							mA
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A =100℃	I_R	10							mA
Typical junction capacitance(Note 3)	C_J	110							pF
Typical thermal capacitance(Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	82.0 26.0							℃/W
Operating junction temperature range	T_J	-65 to+150							℃
Storage temperature range	T_{STG}	-65 to+150							℃

Notes: 1.Pulse test: 300 μ s 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

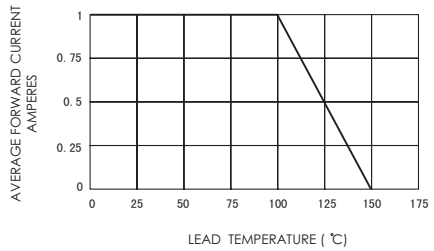


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

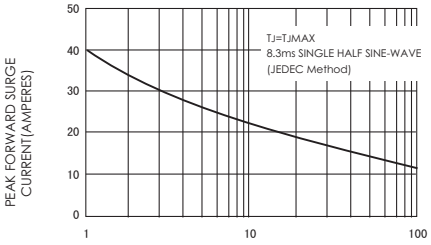


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

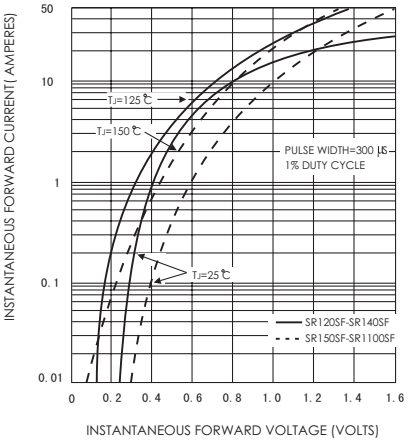


FIG.4-TYPICAL REVERSE CHARACTERISTICS

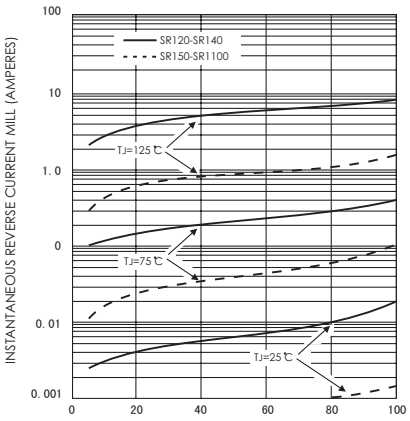


FIG.5-TYPICAL JUNCTION CAPACITANCE

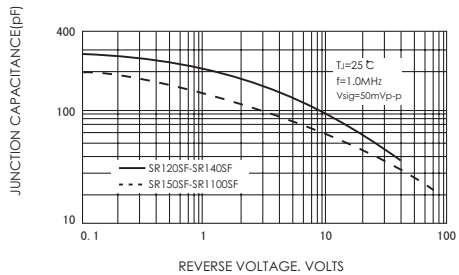
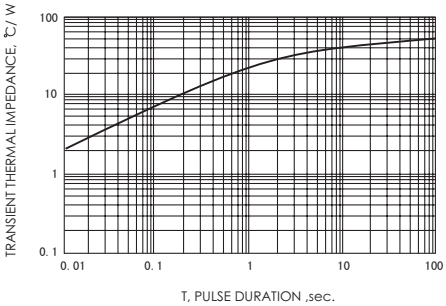


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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