



XIN SEMICONDUCTOR
ISO9002

HQ MARKING

1SS101 THUR 1SS301

SUPER HIGH SPEED SWITCHING DIODE
SPECIAL DESIGN FOR PROTECTING SOLAR BATTERY

FEATURES

- For general purpose applications
- These diodes features very low turn-on voltage and fastswitching. These devices are protected by a Pnjunction guard ring against excessive voltage, such as electrostatic discharges.

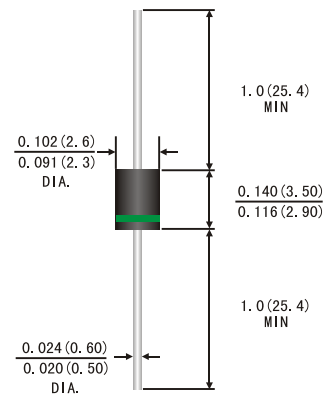
APPLICATIONS

- High speed switch circuit
- IC polarity protection
- Solar battery polarity protection
- Small signal rectifier

MECHANICAL DATA

- *Case:* JEDEC R-1 molded plastic body
- *Polarity:* color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.0063ounce, 0.18 gram

R-1



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	1SS101	1SS201	1SS301	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 0.375"(9.5mm)lead length at $T_L=90^\circ C$	$I_{(AV)}$	0.5			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}	5.0			Amps
Maximum instantaneous forward voltage at 1mA 200mA	V_F	0.20 0.35			Volts
Maximum instantaneous reverse current at rated DC blocking voltage)	I_R	$T_A=25^\circ C$	0.01		m A
		$T_A=100^\circ C$	1.0		
Typical junction capacitance	C_J	10.0			PF
Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JL}$	50.0 15.0			$^\circ C/W$
Operating junction and storage temperature range	$T_J T_{STG}$	-65 to +125			$^\circ C$

RATINGS AND CHARACTERISTIC CURVES 1SS101 THRU 1SS301

FIG. 1-FORWARD CURRENT DERATING CURVE

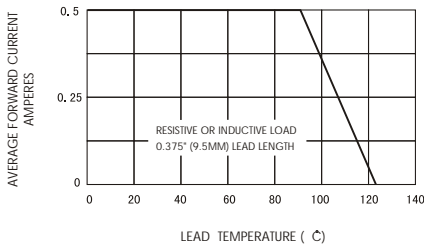


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

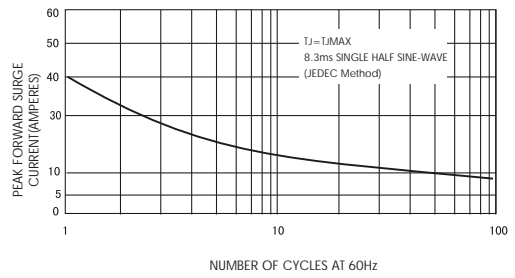


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

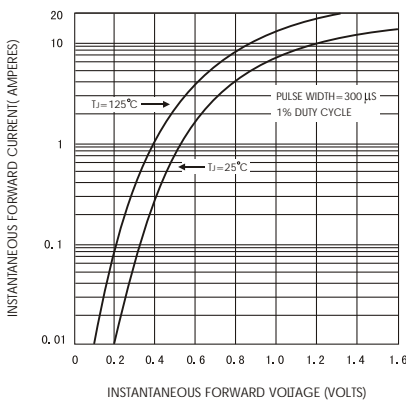


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

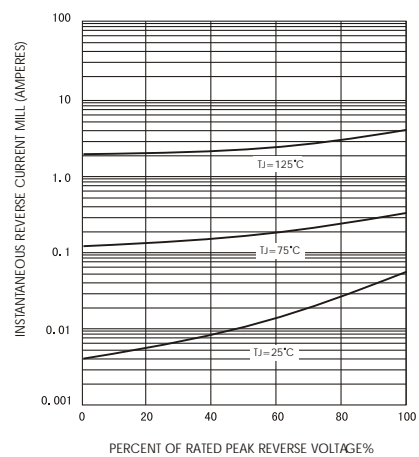


FIG. 5-TYPICAL JUNCTION CAPACITANCE

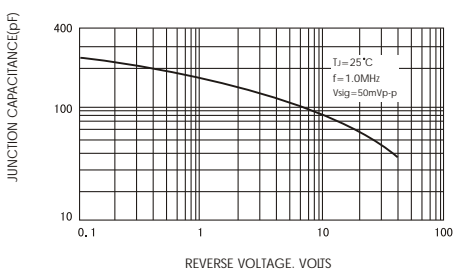


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

