SCHOTTKY BARRIER RECTIFIERS

10SQ030 thru 10SQ100

REVERSE VOLTAGE -30 to 100Volts
FORWARD CURRENT -10.0 Amperes

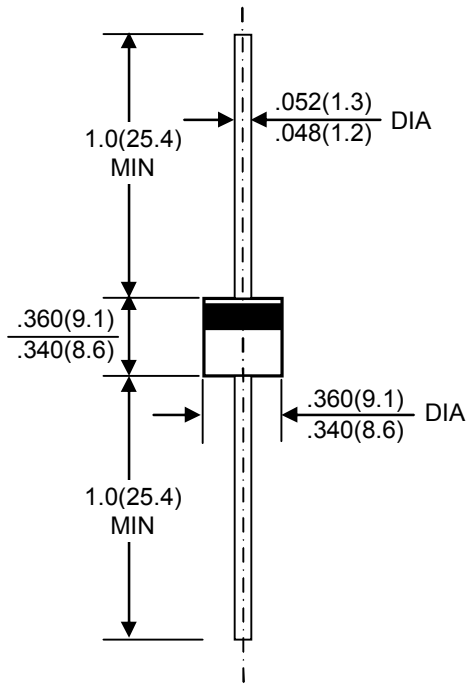
FEATURES

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High current capability,low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- Case: JEDEC R-6 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.07 ounces , 2.1 grams
- Mounting position: Any

R - 6



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	10SQ030	10SQ035	10SQ040	10SQ045	10SQ050	10SQ060	10SQ080	10SQ100	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	21	24.5	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	50	60	80	100	V
Maximum Average Forward Rectified Current@Tc=95 ℃	$I_{(AV)}$	10								A
Peak Forward Surage Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I_{FSM}	275								A
Peak Forward Voltage at 10A DC(Note1)	V_F	0.55				0.7		0.8		V
Maximum DC Reverse Current @Tj=25℃ at Rated DC Bolcking Voltage @Tj=100℃	I_R	0.5 50								mA
Tyical Junction Capacitance (Note2)	C_J	450								PF
Tyical Thermal Resistance (Note3)	$R_{\theta JC}$	3.0								℃/w
Operating Temperature Range	T_J	-55 to+150								℃
Storage Temperature Range	T_{STG}	-55 to+150								℃

NOTES:1.300us Pulse Width, 2%Dudy Cycle.

2.Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal Resistance Junction to Case.

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FIG.1-FORWARD CURRENT DERATING CURVE

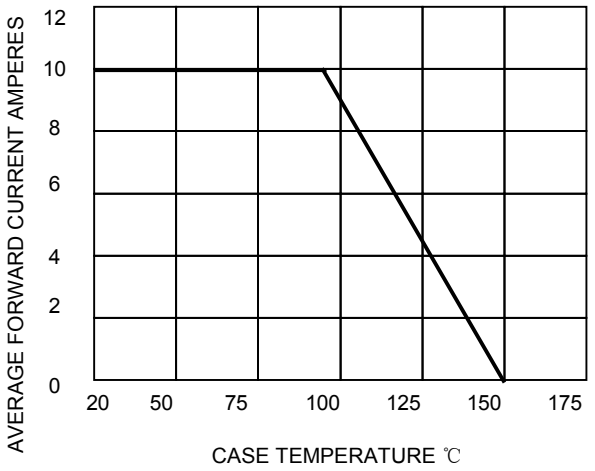

FIG.2-MAXIMUM NON-REPETITVE SURGE

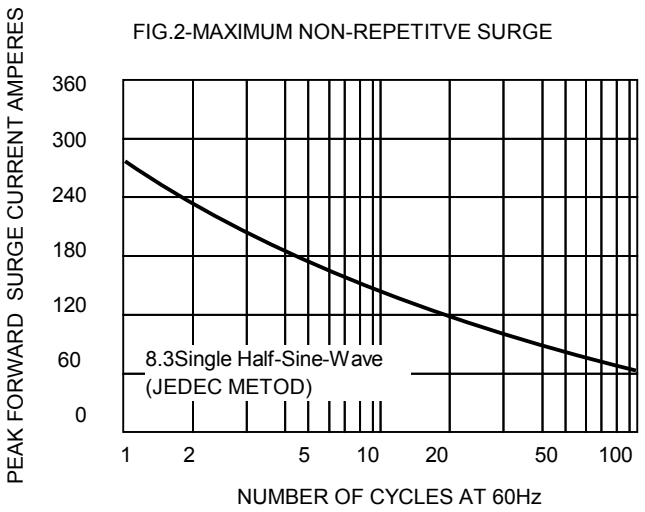

FIG.3-TYPICAL REVERSE CHARACTERISTICS

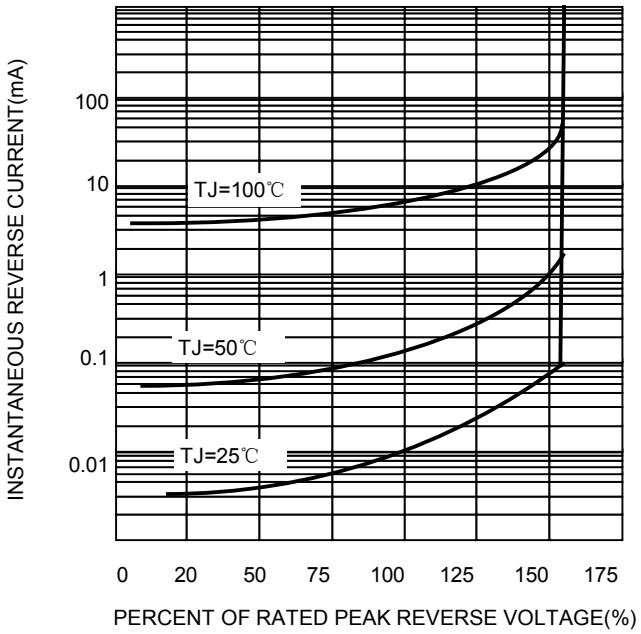

FIG.4-TYPICAL FORWARD CHARACTERISTICS

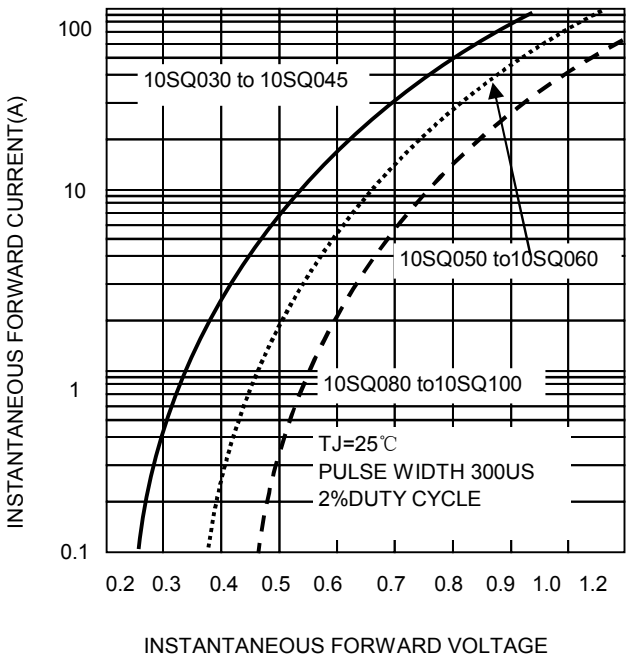

FIG.5-TYPICAL JUNCTION CAPACITANCE