



# 10SQ030 thru 10SQ100

<h2>SCHOTTKY BARRIER RECTIFIERS</h2>	<h2>REVERSE VOLTAGE -30 to 100Volts FORWARD CURRENT -10.0 Amperes</h2>
<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>●Metal of silicon rectifier , majority carrier conduction</li> <li>●Guard ring for transient protection</li> <li>●Low power loss,high efficiency</li> <li>●High current capability,low VF</li> <li>●High surge capacity</li> <li>●Plastic package has UL flammability classification 94V-0</li> <li>●For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>●Case: JEDEC R-6 molded plastic</li> <li>●Polarity: Color band denotes cathode</li> <li>●Weight: 0.07 ounces , 2.1 grams</li> <li>●Mounting position: Any</li> </ul>	<p style="text-align: center;">R - 6</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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 <sub>RRM</sub>	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	24.5	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	35	40	45	50	60	80	100	V
Maximum Average Forward Rectified Current@T <sub>c</sub> =95 °C	I <sub>(AV)</sub>	10								A
Peak Forward Surage Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I <sub>FSM</sub>	275								A
Peak Forward Voltage at 10A DC(Note1)	V <sub>F</sub>	0.55			0.7		0.8			V
Maximum DC Reverse Current @T <sub>j</sub> =25°C at Rated DC Bolcking Voltage @T <sub>j</sub> =100°C	I <sub>R</sub>	0.5				50				mA
Typical Junction Capacitance (Note2)	C <sub>J</sub>	450								PF
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	3.0								°C/w
Operating Temperature Range	T <sub>J</sub>	-55 to+150								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to+150								°C

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.

# RATING AND CHARACTERISTIC CURVES

## 10SQ030 thru 10SQ100



FIG.1-FORWARD CURRENT DERATING CURVE

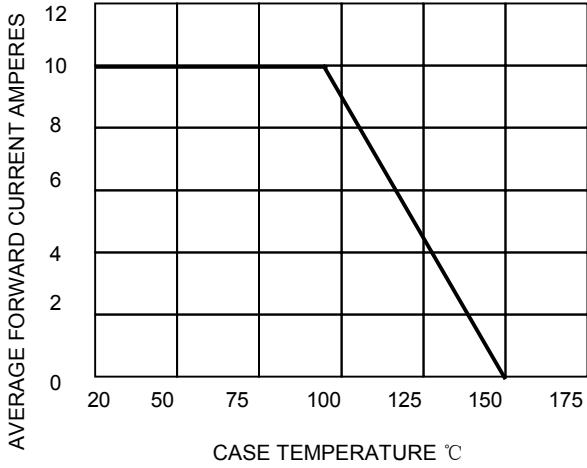


FIG.2-MAXIMUM NON-REPETITIVE SURGE

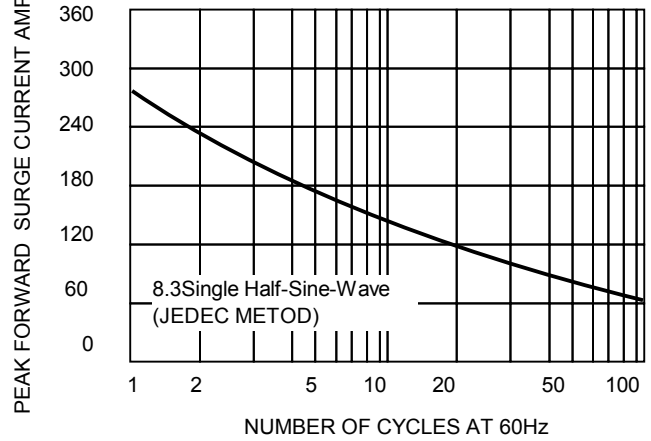


FIG.3-TYPICAL REVERSE CHARACTERISTICS

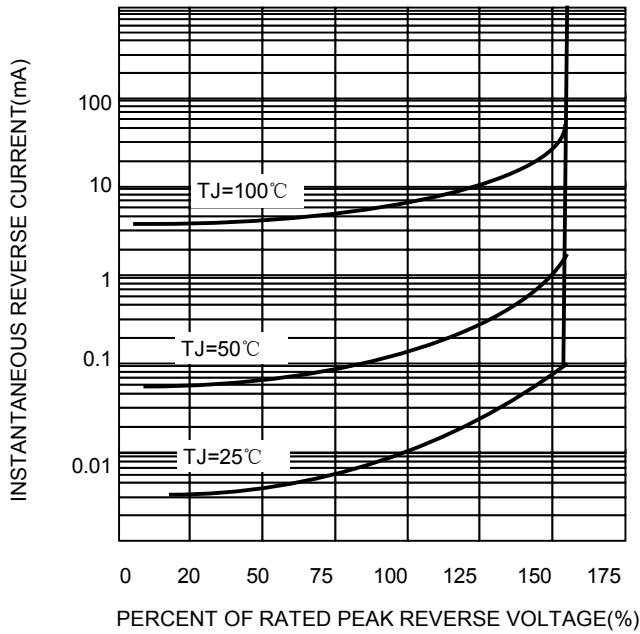


FIG.4-TYPICAL FORWARD CHARACTERISTICS

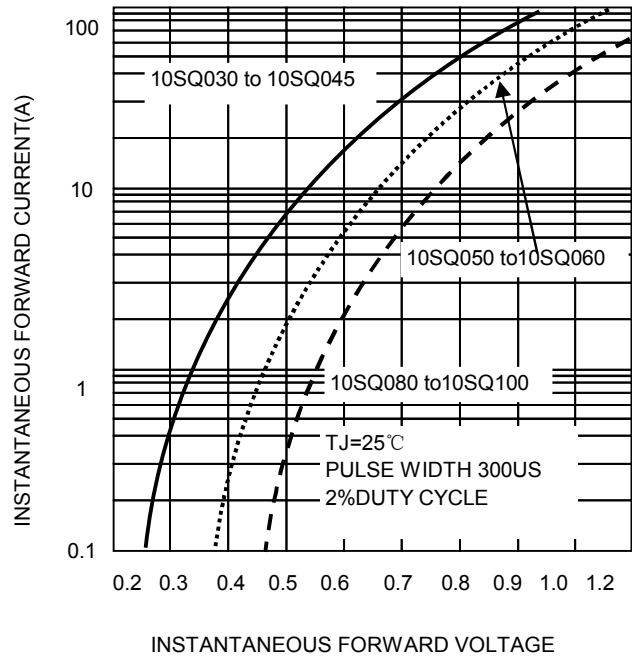


FIG.5-TYPICAL JUNCTION CAPACITANCE

