

<h2>SCHOTTKY BARRIER RECTIFIERS</h2>	<p><b>REVERSE VOLTAGE - 30 to 100Volts</b>  <b>FORWARD CURRENT - 15.0 Amperes</b></p>
<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>● 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><b>R - 6</b></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	20SQ030	20SQ035	20SQ040	20SQ045	20SQ050	20SQ060	20SQ080	20SQ100	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(AV)	20								A	
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I <sub>FSM</sub>	300								A	
Peak Forward Voltage at 20A 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> =125°C	I <sub>R</sub>	0.5				50				mA	
Typical Junction Capacitance (Note2)	C <sub>J</sub>	450									pF
Typical Thermal Resistance (Note2)	R <sub>θjc</sub>	3									°C/W
Junction temperature Range in DC forward mode	T <sub>J</sub>	-55 to+175				200					°C
Storage Temperature Range	T <sub>S</sub>	-55 to+175									°C
ESD	VESD	15000									V

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

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

3.Thermal Resistance Junction to case.

# RATING AND CHARACTERISTIC CURVES

## 20SQ030 thru 20SQ100



FIG.1-FORWARD CURRENT DERATING CURVE

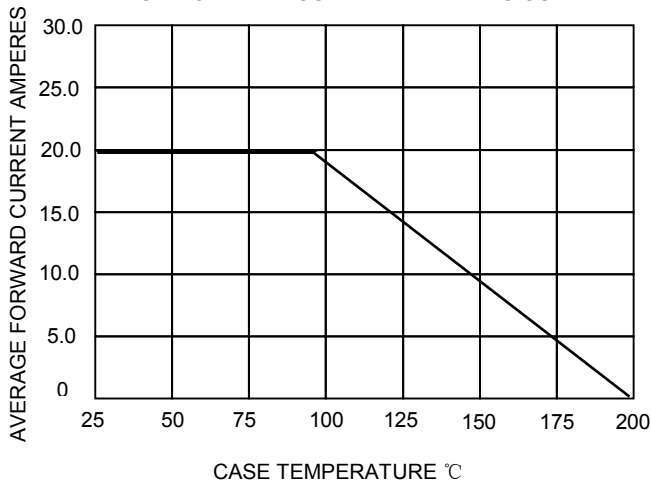


FIG.2-MAXIMUM NON-REPETITIVE SURGE

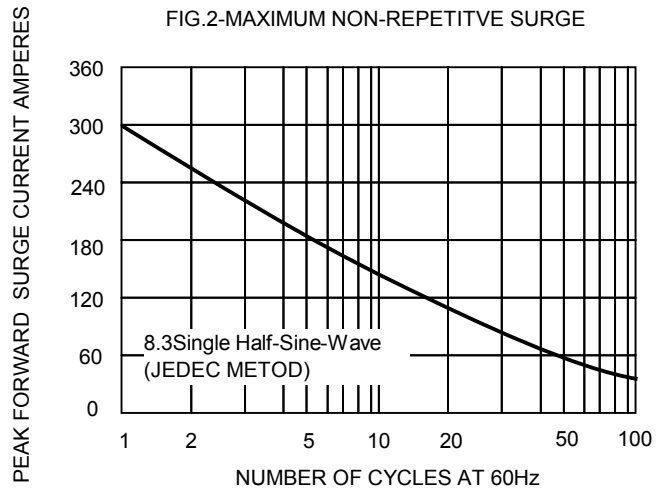


FIG.3-TYPICAL REVERSE CHARACTERISTICS

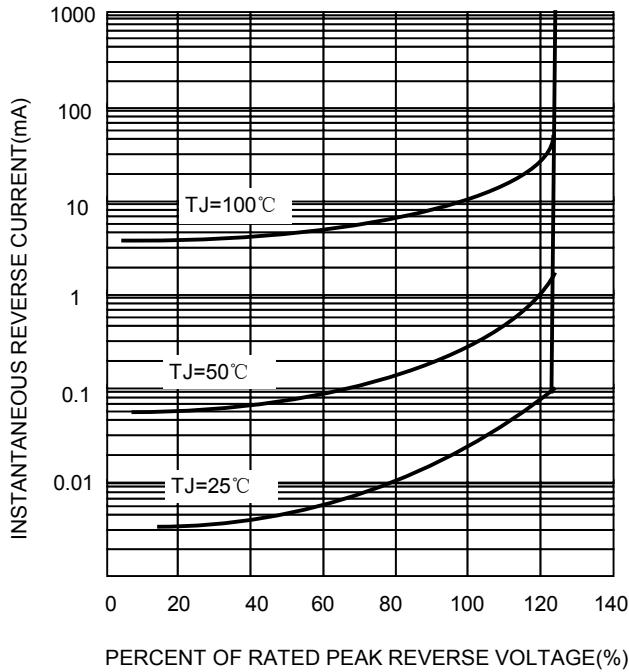


FIG.4-TYPICAL FORWARD CHARACTERISTICS

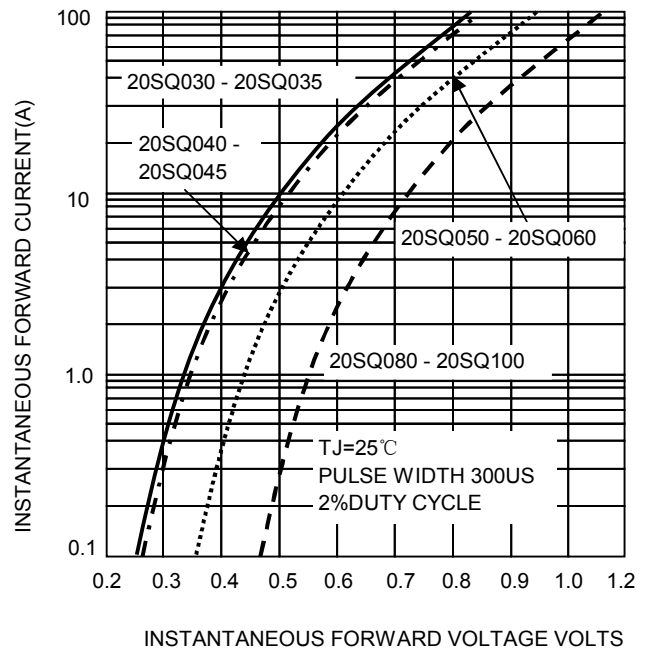


FIG.5-TYPICAL JUNCTION CAPACITANCE

