



SCHOTTKY BARRIER RECTIFIERS

<h3 style="margin: 0;">10SQ030 thru 10SQ100</h3> <p>FEATURES</p> <ul style="list-style-type: none"> ●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 <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ●Case: JEDEC R-6 molded plastic ●Polarity: Color band denotes cathode ●Weight: 0.07 ounces , 2.1 grams ●Mounting position: Any 	<p style="text-align: center;">REVERSE VOLTAGE -30 to 100Volts FORWARD CURRENT -10.0 Amperes</p> <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 _{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@T _c =95 °C	I _(AV)	10								A
Peak Forward Surge 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 @T _j =25°C	I _R	0.5								mA
at Rated DC Bolcking Voltage @T _j =100°C		50								
Typical Junction Capacitance (Note2)	C _J	450								PF
Typical Thermal Resistance (Note3)	R _{θJC}	3.0								°C/w
Operating Temperature Range	T _J	-55 to+150								°C
Storage Temperature Range	T _{STG}	-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.



SCHOTTKY BARRIER RECTIFIERS

10SQ030 thru 10SQ100

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

FIG.1-FORWARD CURRENT DERATING CURVE

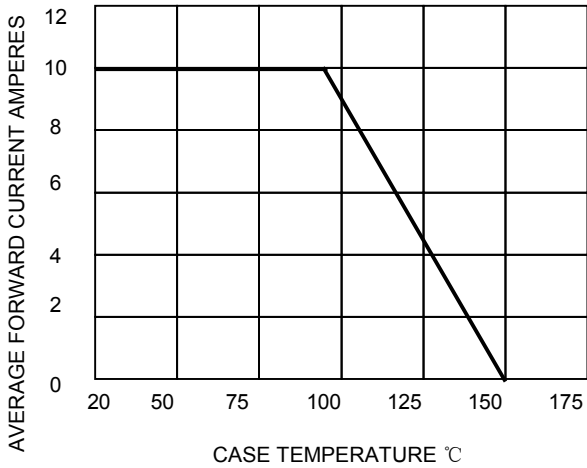


FIG.2-MAXIMUM NON-REPETITIVE SURGE

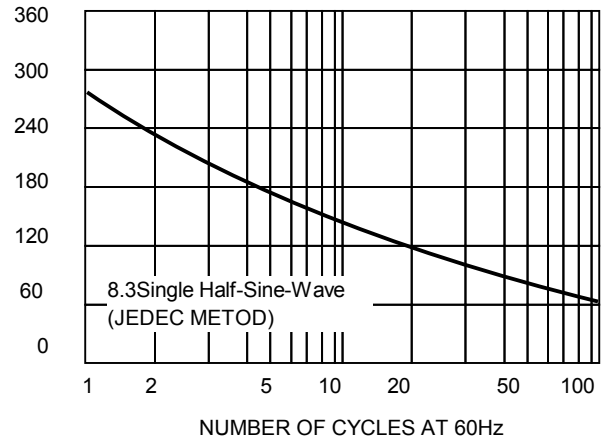


FIG.3-TYPICAL REVERSE CHARACTERISTICS

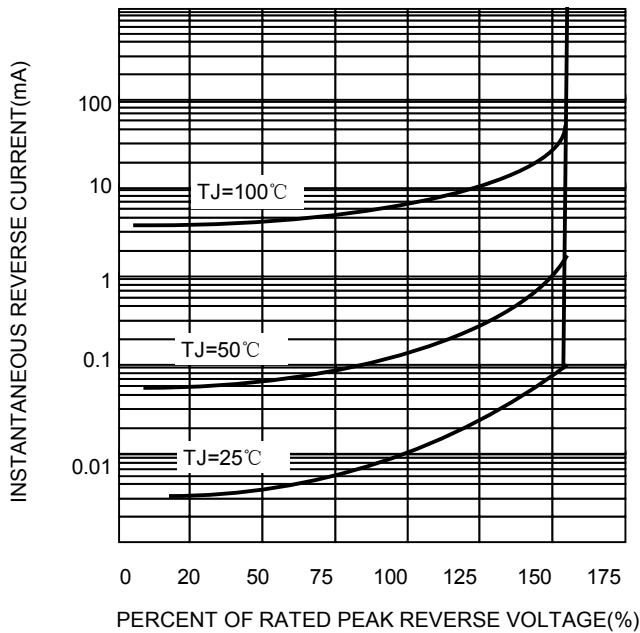


FIG.4-TYPICAL FORWARD CHARACTERISTICS

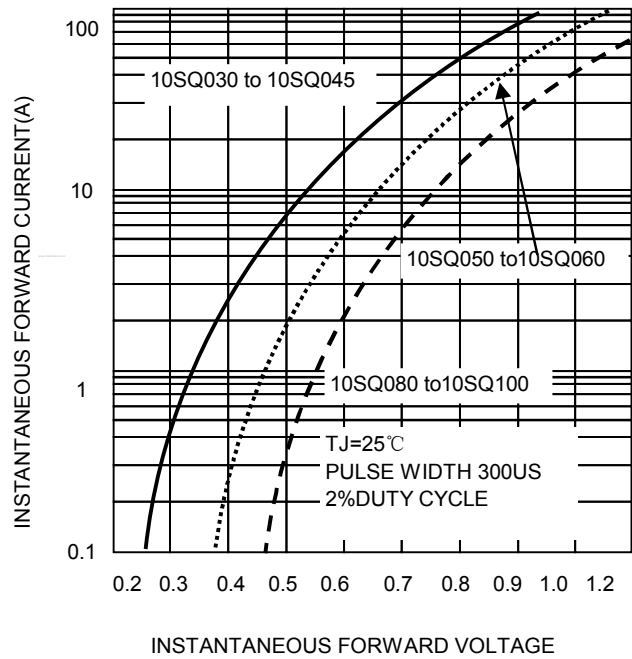


FIG.5-TYPICAL JUNCTION CAPACITANCE

