



SCHOTTKY BARRIER RECTIFIERS

12SQ035 THRU 12SQ100	VOLTAGE RANGE 35 to 100 Volts CURRENT 12 Ampere
FEATURES <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 MECHANICAL DATA <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;">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	12SQ035	12SQ040	12SQ045	12SQ060	12SQ080	12SQ100	UNIT	
Maximum Recurrent Peak Reverse Voltage	VRRM	35	40	45	60	80	100	V	
Maximum RMS Voltage	VRMS	24.5	28	31.5	42	56	70	V	
Maximum DC Blocking Voltage	VDC	35	40	45	60	80	100	V	
Maximum Average Forward Rectified Current@Tc=95 °C	I(AV)	12						A	
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	IFSM	275						A	
Peak Forward Voltage at 10A DC(Note1)	VF	0.55		0.7		0.8		V	
Maximum DC Reverse Current @Tj=25°C at Rated DC Bolcking Voltage @Tj=100°C	IR	0.5						50	mA
Typical Junction Capacitance (Note2)	CJ	450						PF	
Typical Thermal Resistance (Note3)	RθJC	3.0						°C/w	
Operating Temperature Range	TJ	-55 to+150						°C	
Storage Temperature Range	TSTG	-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.



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FIG.1-FORWARD CURRENT DERATING CURVE

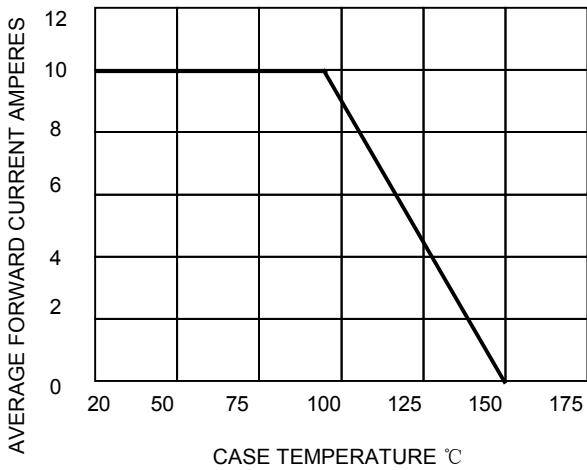


FIG.2-MAXIMUM NON-REPETITIVE SURGE

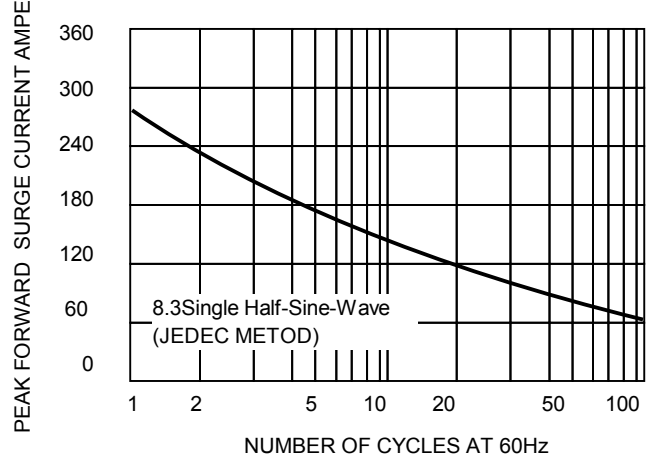


FIG.3-TYPICAL REVERSE CHARACTERISTICS

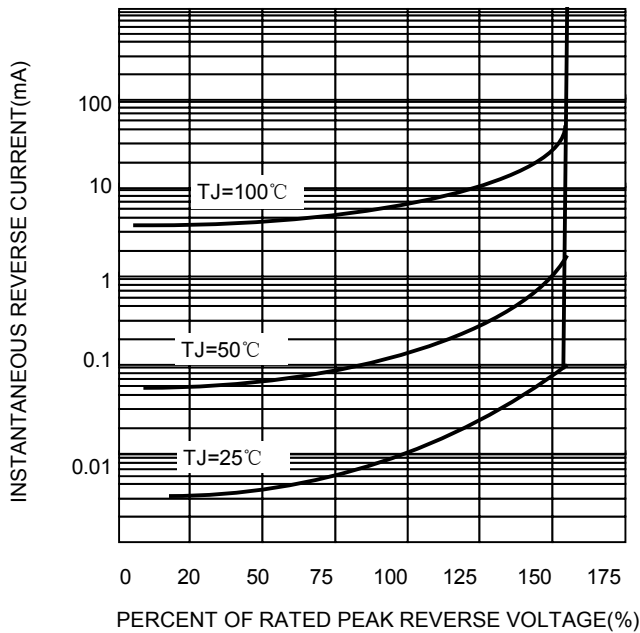


FIG.4-TYPICAL FORWARD CHARACTERISTICS

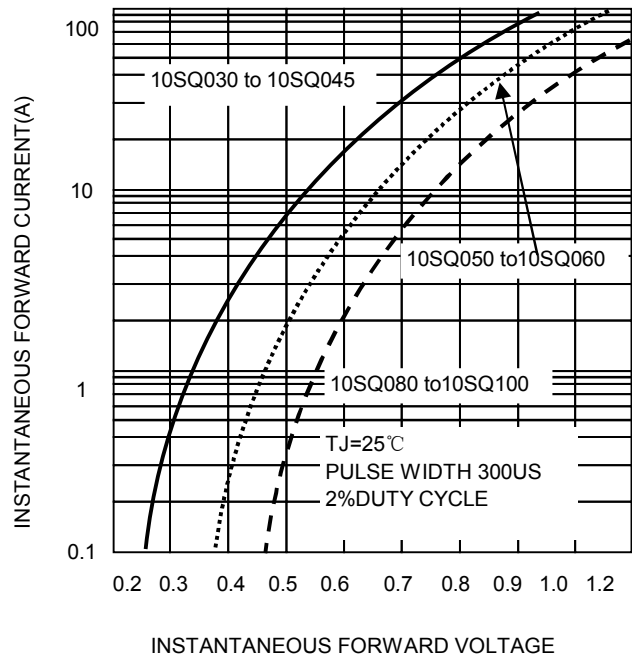


FIG.5-TYPICAL JUNCTION CAPACITANCE

