



SCHOTTKY BARRIER RECTIFIERS

12SQ035 THRU 12SQ100	VOLTAGE RANGE 35 to 100 Volts CURRENT 12 Ampere
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°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 Surage 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℃ at Rated DC Bolcking Voltage @Tj=100℃	IR	0.5 50								mA
Tyical Junction Capacitance (Note2)	CJ	450								PF
Tyical Thermal Resistance (Note3)	RθJC	3.0								℃/w
Operating Temperature Range	TJ	-55 to+150								℃
Storage Temperature Range	TSTG	-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

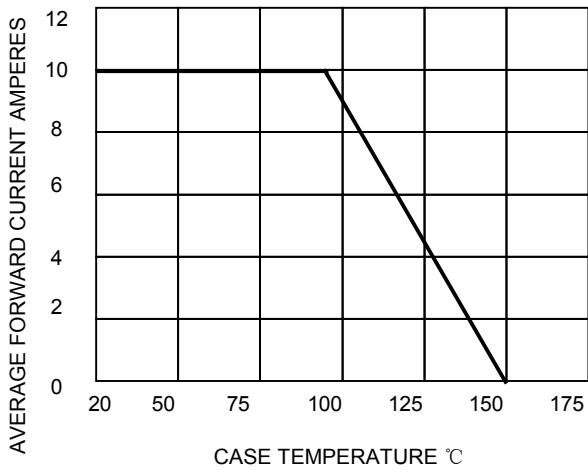


FIG.2-MAXIMUM NON-REPETITIVE SURGE

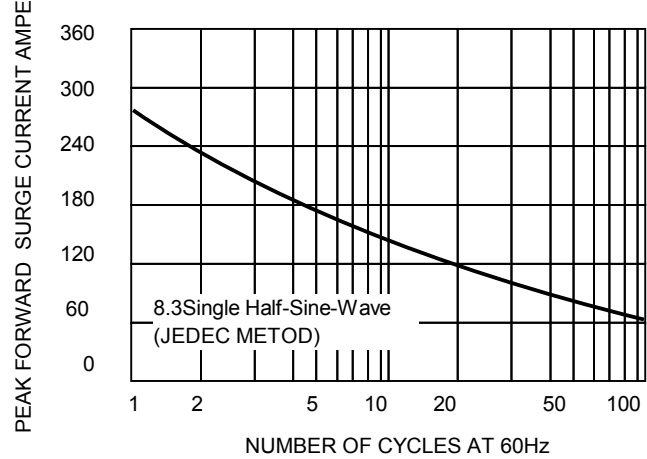


FIG.3-TYPICAL REVERSE CHARACTERISTICS

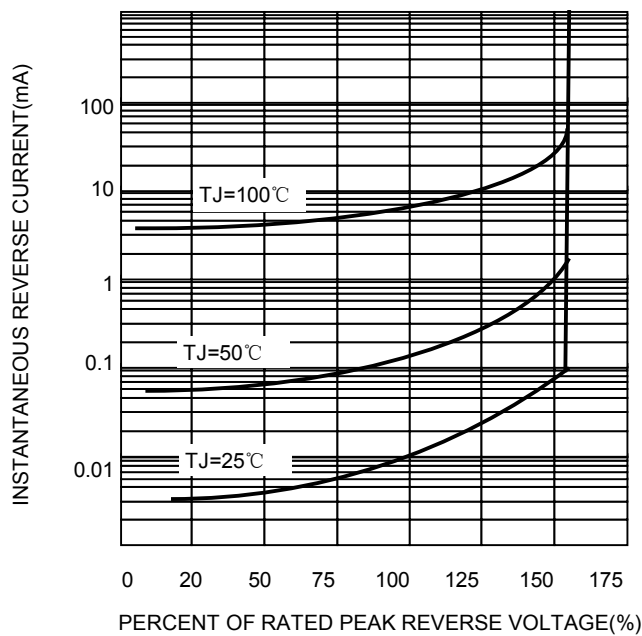


FIG.4-TYPICAL FORWARD CHARACTERISTICS

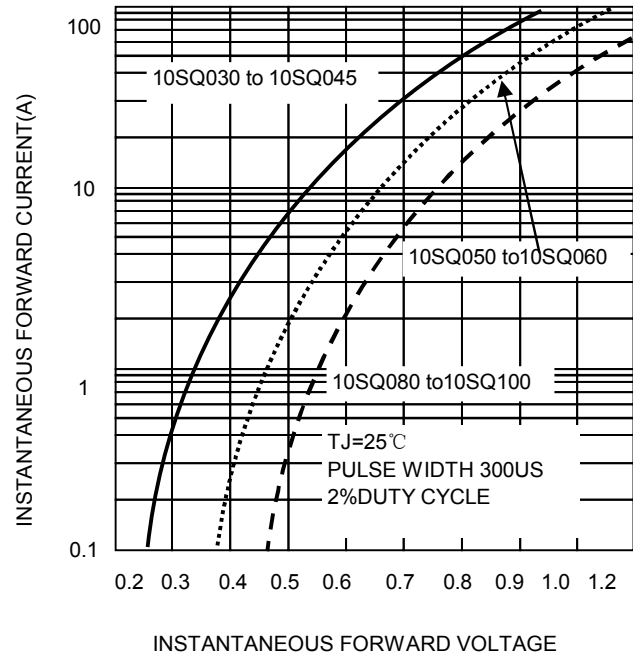


FIG.5-TYPICAL JUNCTION CAPACITANCE

