

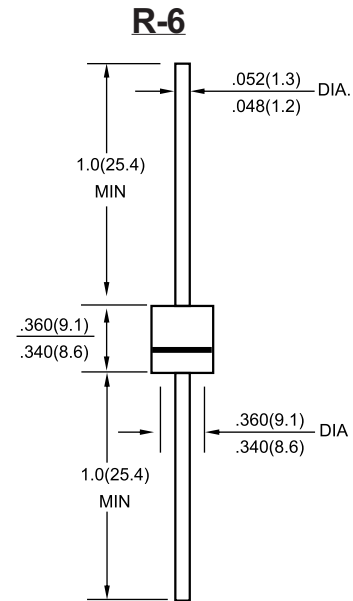


FEATURES

- 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
- 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



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	12SQ030	12SQ035	12SQ040	12SQ045	12SQ050	12SQ060	12SQ080	12SQ100	UNIT	
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	50	60	80	100	V	
Maximum RMS Voltage	VRMS	21	24.5	28	31.5	35	42	56	70	V	
Maximum DC Blocking Voltage	VDC	30	35	40	45	50	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 12A DC(Note1)	VF	0.55			0.7		0.8			V	
Maximum DC Reverse Current @Tj=25°C at Rated DC Bolcking Voltage @Tj=125°C	IR	0.1				50					mA
Tyical Junction Capacitance (Note2)	CJ	450									pF
Tyical Thermal Resistance (Note3)	RθJC	3.0									°C/w
Junction temperature Range in DC forward mode	TJ	-55 to+200									°C
Storage Temperature Range	Ts	-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.

FIG.1-FORWARD CURRENT DERATING CURVE

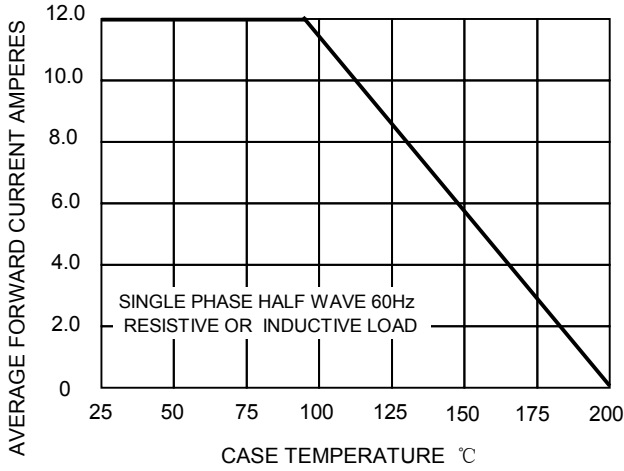


FIG.2-MAXIMUM NON-REPETITIVE SURGE

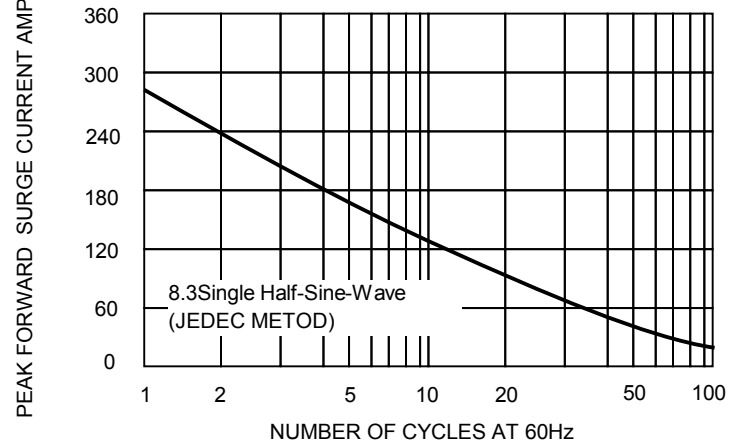


FIG.3-TYPICAL REVER CHARACTERISTICS

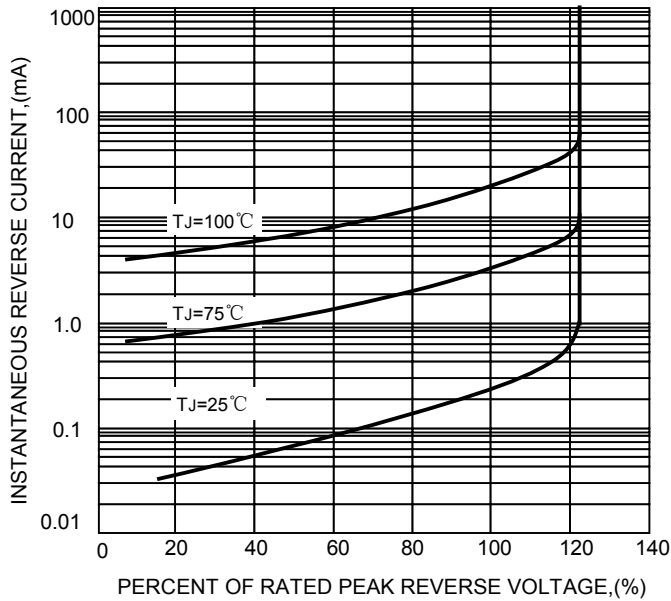


FIG.4-TYPICAL FORWARD CHARACTERISTICS

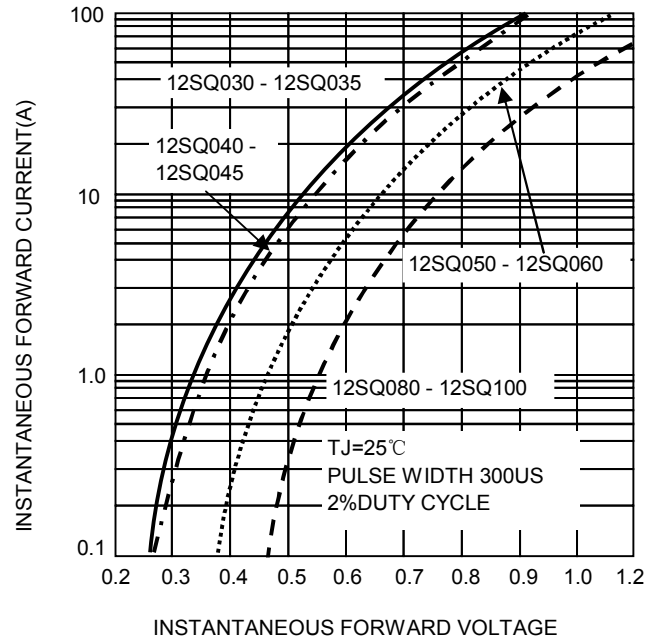


FIG.5-TYPICAL JUNCTION CAPACITANCE

