

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 100Volts FORWARD CURRENT - 12.0 Amperes
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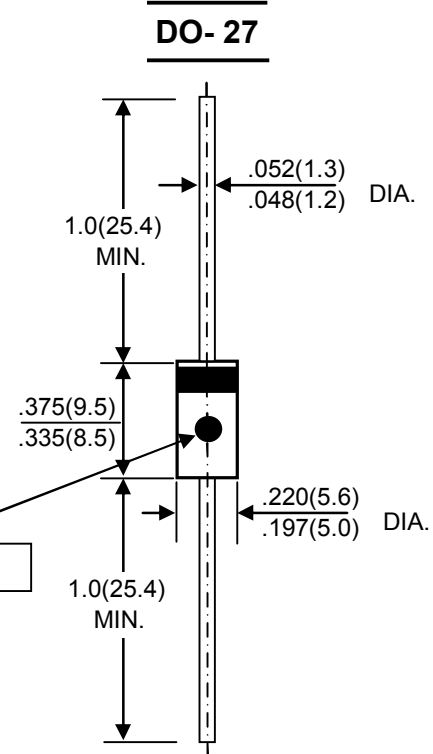
FEATURES

- 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 DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04ounces , 1.1grams
- Mounting position: Any

Tc measurement point



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	SQ1230	SQ1235	SQ1240	SQ1245	SQ1250	SQ1260	SQ1280	SQ12100	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)	12								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 12A DC(Note1)	V _F	0.55			0.7		0.8			V	
Maximum DC Reverse Current @T _j =25°C at Rated DC Bolcking Voltage @T _j =100°C	I _R	0.5				50					mA
Tyical Junction Capacitance (Note2)	C _J	450								pF	
Tyical Thermal Resistance (Note3)	R _{θJC}	3.0								°C/w	
Operating Temperature Range	T _J	-55 to+200								°C	
Storage Temperature Range	T _{STG}	-55 to+200								°C	

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

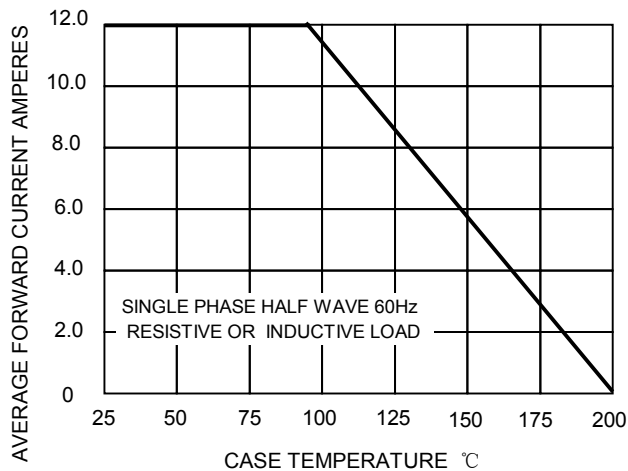


FIG.2-MAXIMUM NON-REPETITIVE SURGE

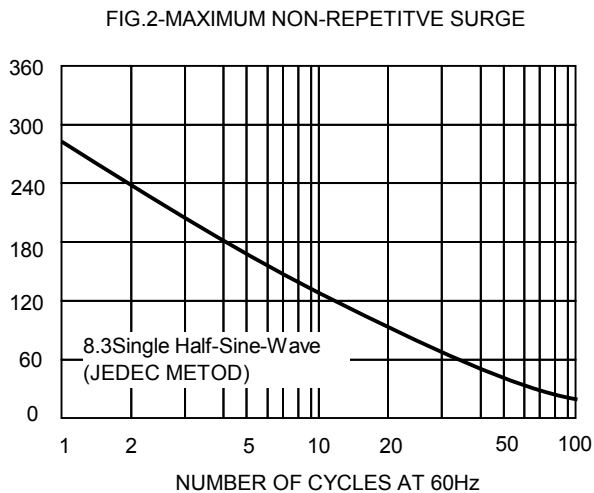


FIG.3-TYPICAL REVER CHARACTERISTICS

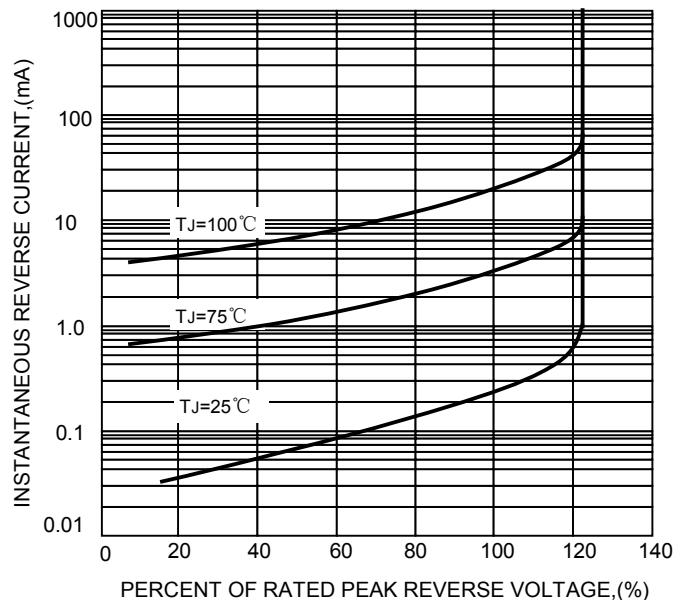


FIG.4-TYPICAL FORWARD CHARACTERISTICS

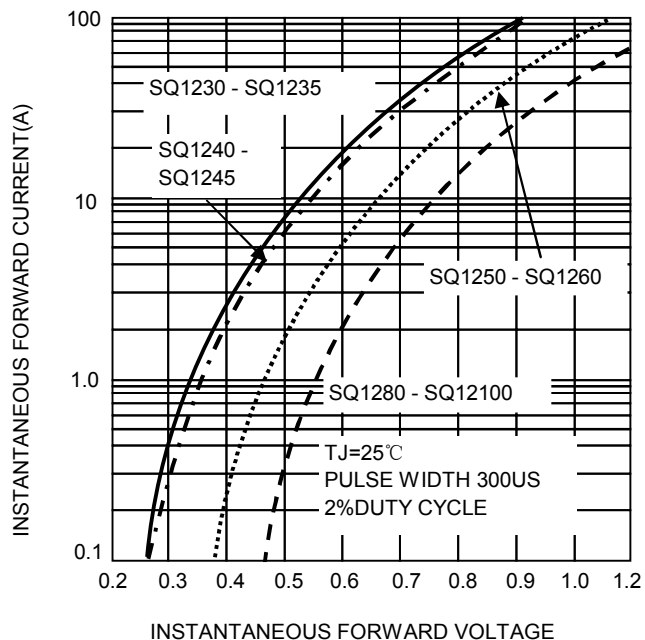


FIG.5-TYPICAL JUNCTION CAPACITANCE

