

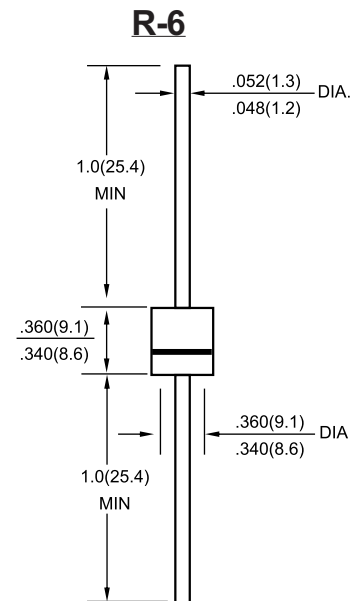


FEATURES

- 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%

Parameter	SYMBOL	12SQ030	12SQ035	12SQ040	12SQ045	12SQ050	12SQ060	12SQ080	12SQ100	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 =125°C	I _R	0.1					50		10		mA
Typical Junction Capacitance (Note2)	C _J	450									pF
Typical Thermal Resistance	R _{θJC}	3.0									°C/w
Junction temperature Range in DC forward mode	T _J	-55 to+200								°C	
Storage Temperature Range	T _{STG}	-55 to+150								°C	

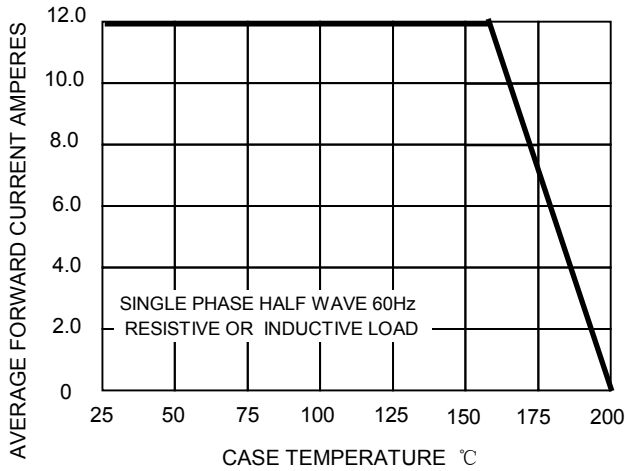
NOTES:1.300us Pulse Width, 2%Duty Cycle.

2.Thermal Resistance Junction to case.



RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT AMPERES

FIG.2-MAXIMUM NON-REPETITIVE SURGE

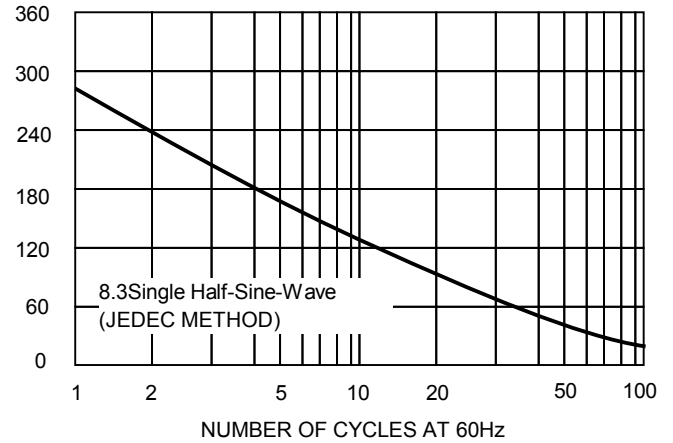


FIG.3-TYPICAL REVER CHARACTERISTICS

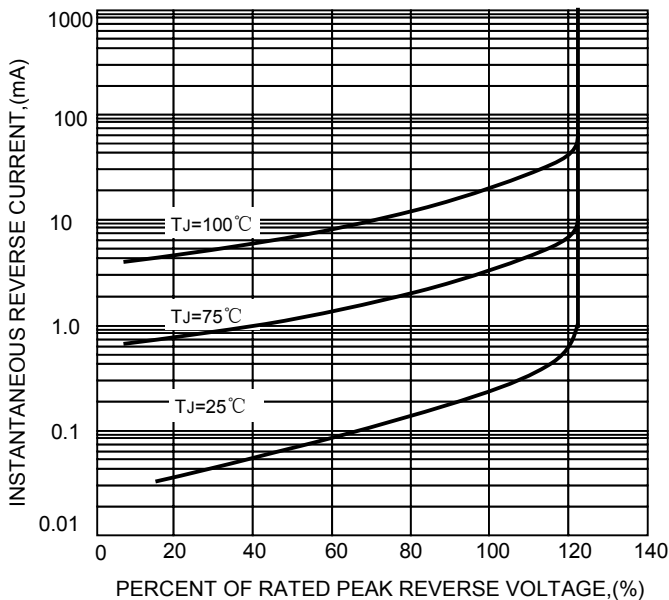


FIG.4-TYPICAL FORWARD CHARACTERISTICS

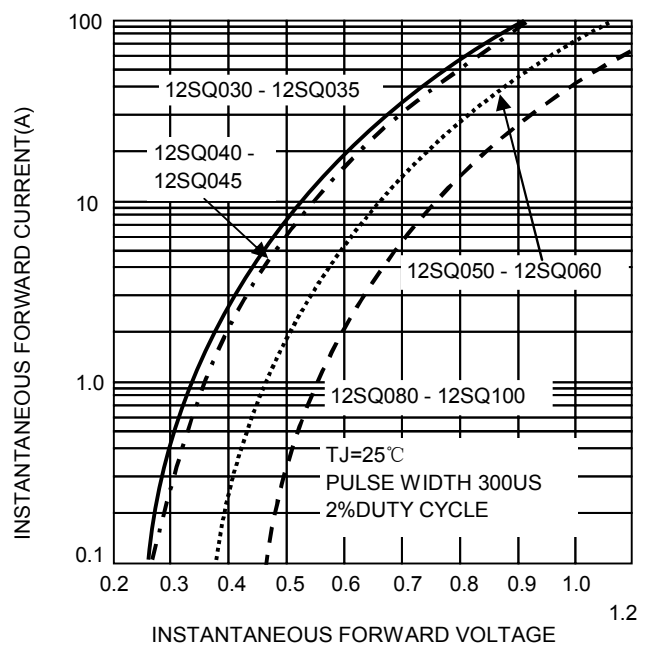
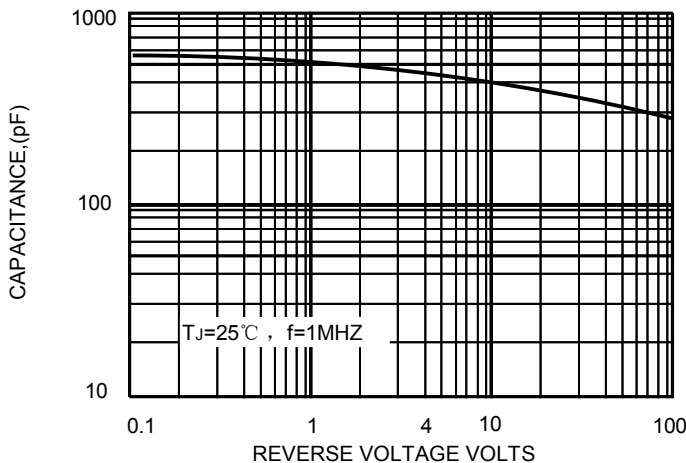


FIG.5-TYPICAL JUNCTION CAPACITANCE



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
R-6	500/AMMO	5000	44X28X31	12.00	10.00