

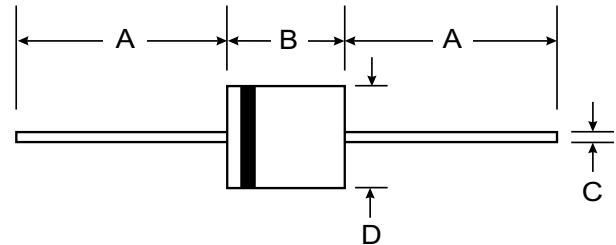
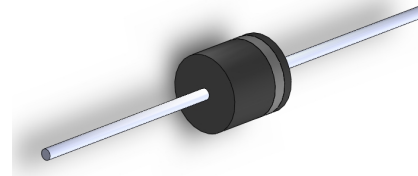
**VOLTAGE RANGE: 30- 100V**  
**CURRENT: 12 A**

### 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

### 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		
Dim	Min	Max
A	25.4	—
B	8.6	9.1
C	1.2	1.3
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	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 @ $T_c=95^\circ\text{C}$	$I_{(AV)}$	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 @ $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_j=100^\circ\text{C}$	$I_R$	0.5								50	mA
Typical Junction Capacitance (Note2)	$C_J$	450								pF	
Typical Thermal Resistance (Note3)	$R_{JC}$	3.0								$^\circ\text{C}/\text{W}$	
Operating Temperature Range	$T_J$	-55 to+200								$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to+200								$^\circ\text{C}$	

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

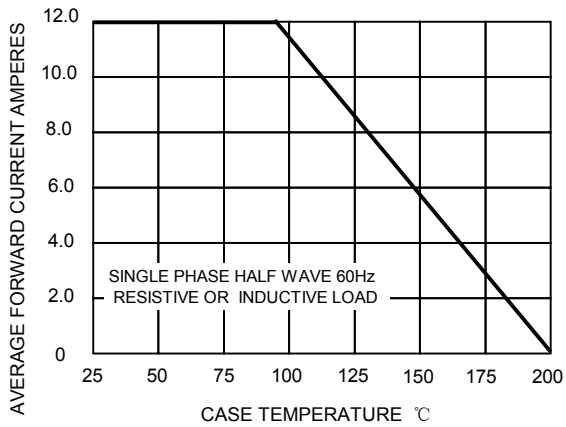


FIG.2-MAXIMUM NON-REPETITIVE SURGE

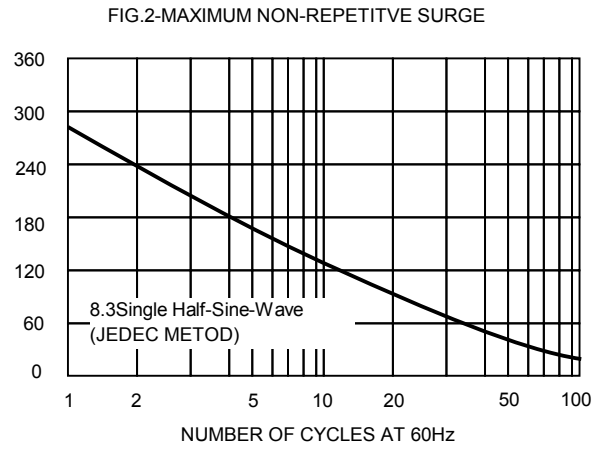


FIG.3-TYPICAL REVER CHARACTERISTICS

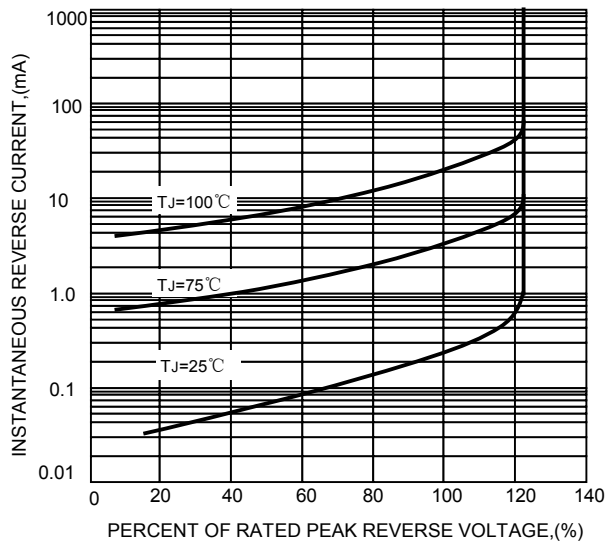


FIG.4-TYPICAL FORWARD CHARACTERISTICS

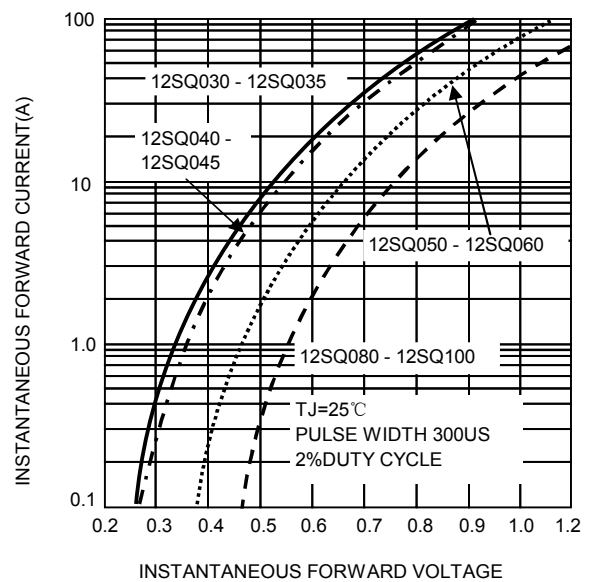


FIG.5-TYPICAL JUNCTION CAPACITANCE

