

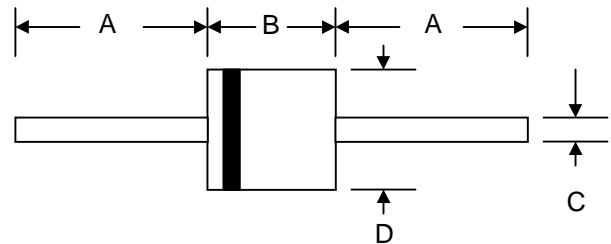
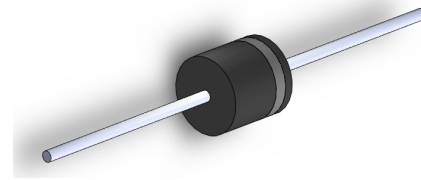
**VOLTAGE RANGE: 45V**  
**CURRENT: 20 A**

### Features

- High surge Forward current capability
- High efficiency
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

### Mechanical Data

- Case: R-6 Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Indicates Cathode
- Approx. Weight: 1.7 grams
- Mounting Position: Any



R-6/P-600		
Dim	Min	Max
A	25.4	—
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
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%.

CHARACTERISTICS	SYMBOL	20SQ045	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	45	V
Maximum RMS Voltage	$V_{RMS}$	31.5	V
Maximum DC Blocking Voltage	$V_{DC}$	45	V
Maximum Average Forward Rectified Current @ $T_c=170^\circ\text{C}$	$I_{(AV)}$	20	A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	$I_{FSM}$	450	A
Peak Forward Voltage at 20A DC(Note1)	$V_F$	0.53	V
Maximum DC Reverse Current @ $T_j=25^\circ\text{C}$	$I_R$	0.5	mA
at Rated DC Blocking Voltage @ $T_j=125^\circ\text{C}$		80	
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	2.5	$^\circ\text{C}/\text{W}$
Operating Temperature Range (@ $V_{DC}$ Blocking Voltage)	$T_J$	-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.Thermal Resistance Junction to case without heatsink.



FIG.1-FORWARD CURRENT DERATING CURVE

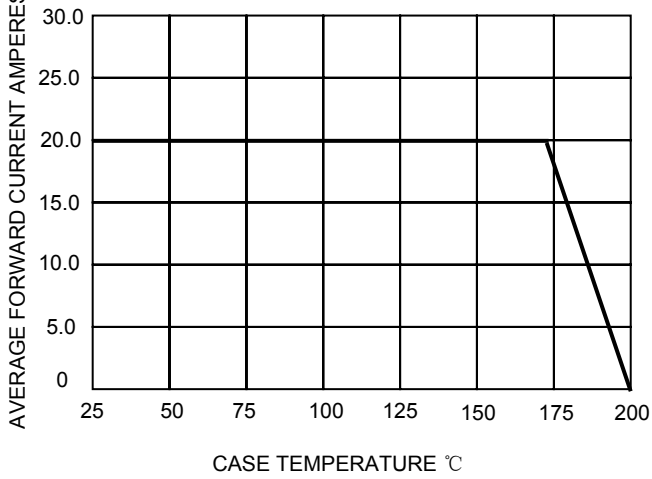


FIG.2-MAXIMUM NON-REPETITIVE SURGE

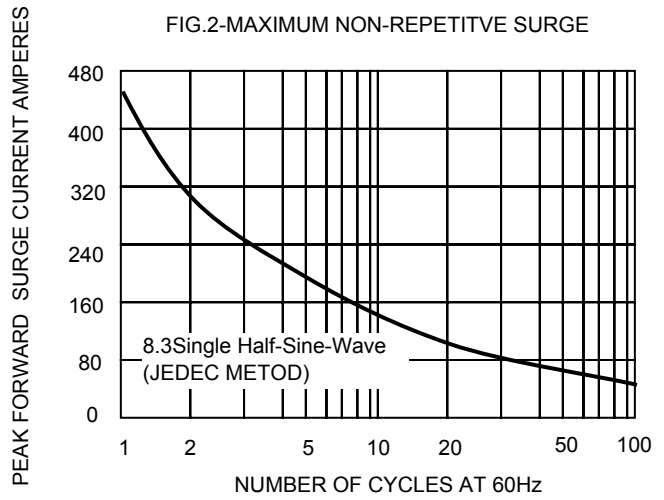


FIG.3-TYPICAL REVERSE CHARACTERISTICS

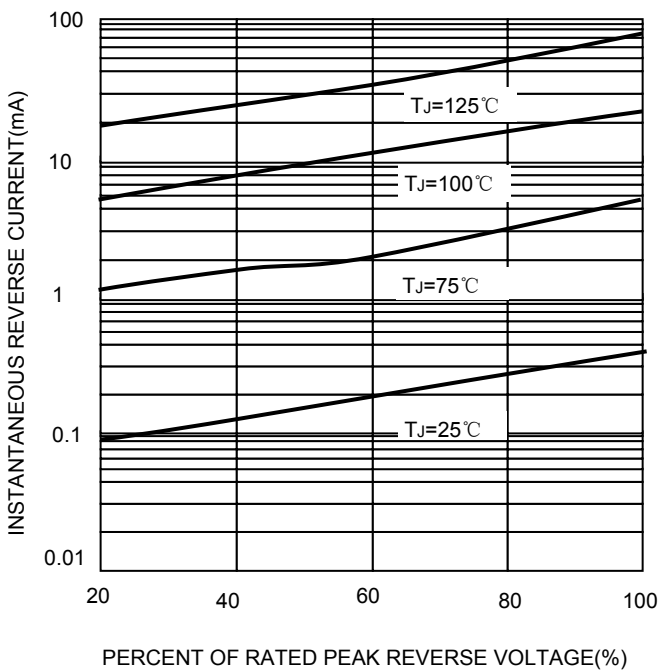
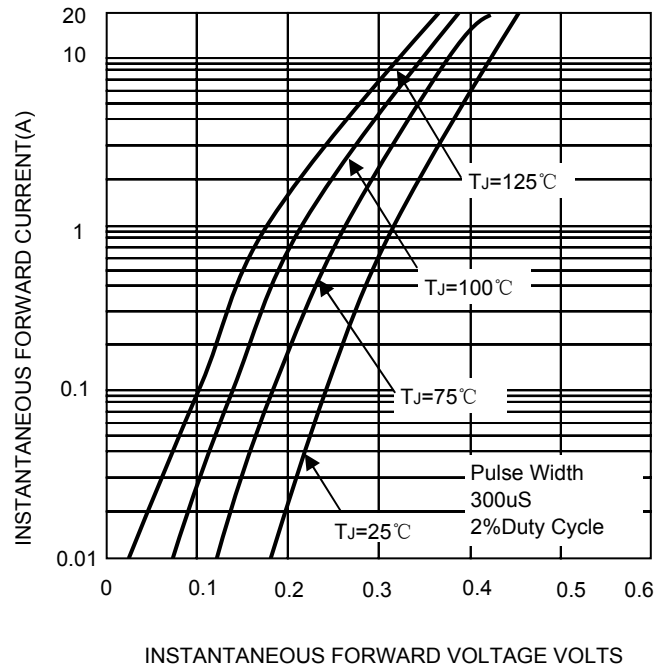


FIG.4-TYPICAL FORWARD CHARACTERISTICS



The curve graph is for reference only, can't be the basis for judgment