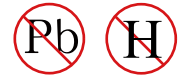




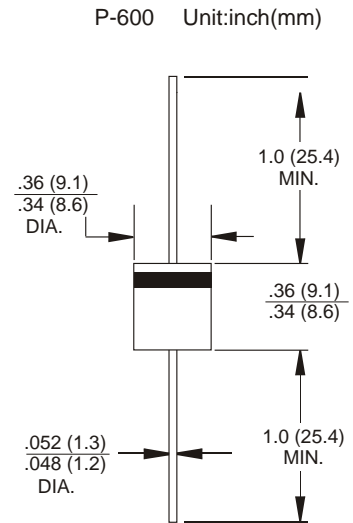
20A Surface Mount Schottky Barrier Rectifier

**Features**

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: P-600, molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

**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%.

Parameter	Symbol	20SQ045	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Working Peak Reverse Voltage	V_{RWM}		
DC blocking voltage	V_{DC}		
RMS Rectified Voltage	$V_{R(RMS)}$	31.5	V
Average Rectified Output Current (Note1)	I_o	20.0	A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2)	I_{FSM}	350	A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	511	A^2s
Forward Voltage Drop $T_A = 25^\circ\text{C}$ @ $I_F = 20\text{A}$	V_F	0.55	V
Peak Reverse Current $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	I_R	0.3 15	mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$	45 2.0	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note: 1. Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2. Fr-4pcb. 2oz. Copper, minimum recommend pad layout .18.8mm \times 14.4. Anode pad dimensions 5.6mm \times 14.4mm.

DEVICE CHARACTERISTICS

20SQ045

FIG 1-FORWARD CURRENT DERATING CURVE

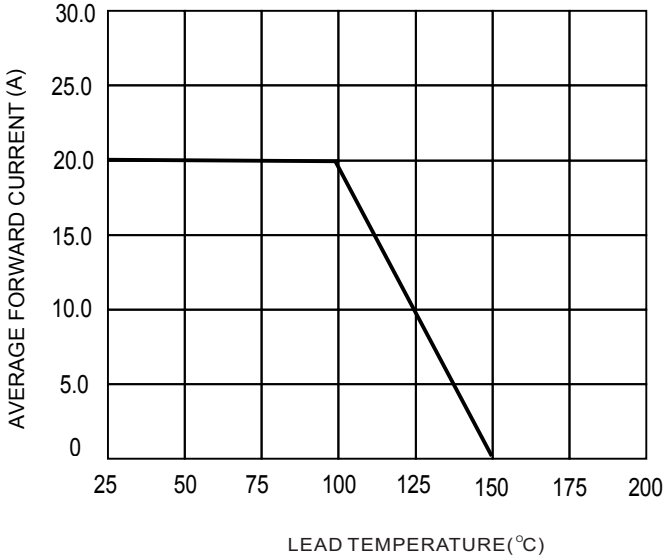


FIG.2-TYPICAL FORWARD CHARACTERISTICS

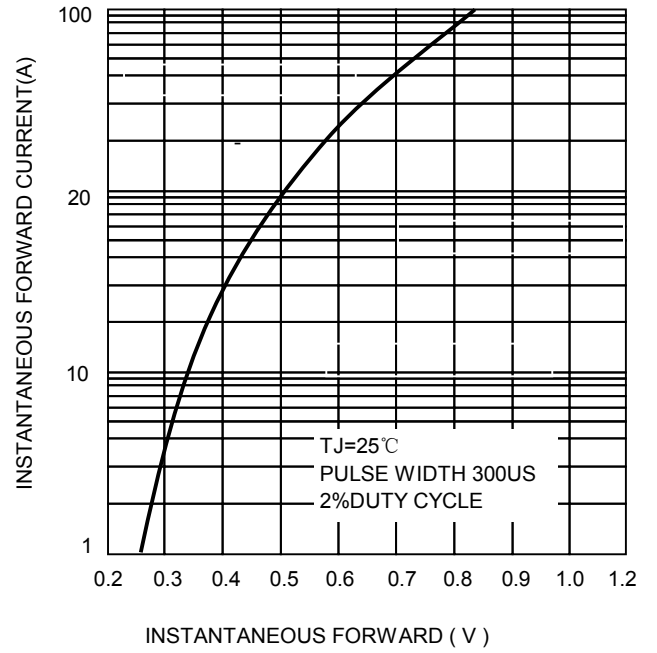


FIG.3-MAXIMUM NON-REPETITIVE SURGE

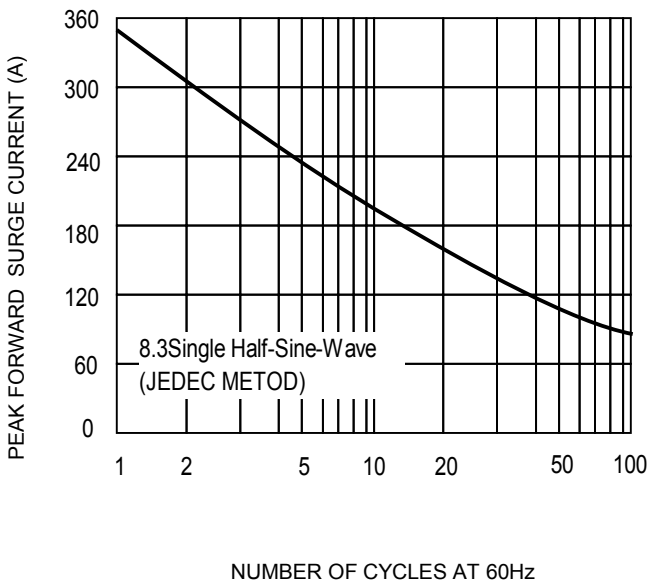


FIG 3-TYPICAL REVERSE CHARACTERISTICS

