

30SQ045

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 45 VOLTS
FORWARD CURRENT: 30 AMPERE

FEATURES

- High current capability
- High surge current capability
- Low forward voltage drop
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and porlarlity protection applications

MECHANICAL DATA

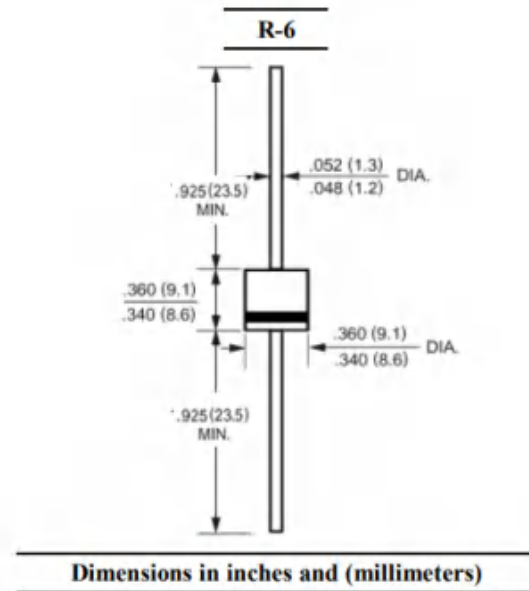
Case: Molded plastic, R-6

Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	30SQ045	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	Volts
Maximum RMS Voltage	V_{RMS}	31.5	Volts
Maximum DC Blocking Voltage	V_{DC}	45	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length (Note 1)	$I_{(AV)}$	30	Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	350	Amp
Peak Forward Voltage @30A DC (Note1)	V_F	0.55	Volts
Maximum Reverse Current at $T_A=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=100^{\circ}C$	I_R	0.1 200	mAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	3.2	$^{\circ}C/W$
Operating Junction Temperature Range	T_{OP}	-55 to +150	$^{\circ}C$
Junction Temperature in DC Forward Current Without Reverse Bias. $T \leq 1$ hour (Note 3)	T_J	-55 to +200	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}C$

NOTES:

1- 300us Pulse Width, 2%Duty Cycle.

2-Thermal Resistance Junction to case.

3- Meets The Requiements Of IEC 61215 ed. 2 Bypass Diode Thermal Test.

FIG1: I_o - T_c Curve

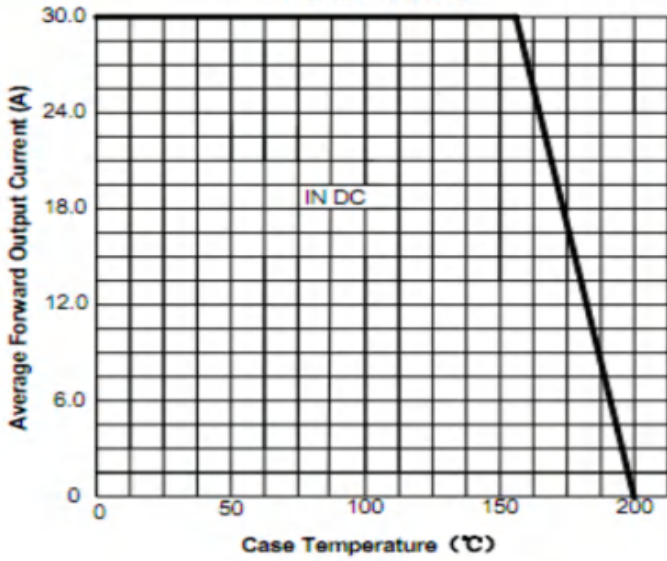


FIG2: Surge Forward Current Capability

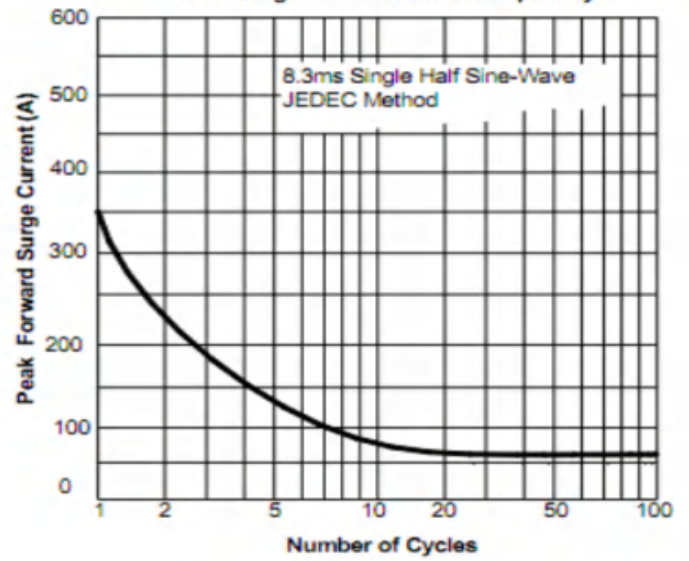


FIG3: Forward Voltage

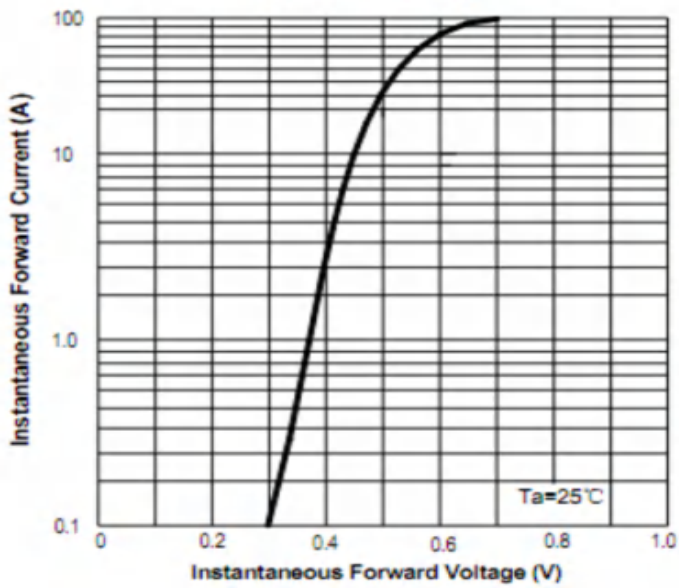


FIG4: Typical Reverse Characteristics

