



# 15SQ045

## SCHOTTKY BARRIER RECTIFIER

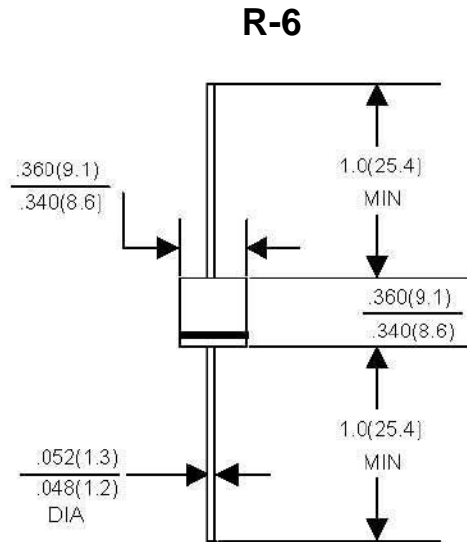
Voltage Range  
45 Volts  
Current  
15.0 Amperes

### Features

- Metal silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability low VF
- High surge capacity
- Plastic package has UL flammability classification 94 V-0

### Mechanical Data

- Cases: 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%

Type Number		15SQ045	UNITS
Maximum Repetitive Peak Reverse Voltage	VRRM	45	V
Maximum RMS Voltage	VRMS	31.5	V
Maximum DC blocking Voltage	VDC	45	V
Maximum Average Forward Rectified Current	IF(AV)	15	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	300	A
Peak Forward Voltage @15.0A DC (Note 1)	VF	0.5	V
Maximum DC Reverse Current @ TA=25°C at rated DC Blocking voltage @ TA=100°C	IR	0.5 50.0	mA mA
Typical Thermal Resistance (Note 2)	RθJC	2.2	°C/W
Junction temperature Range at reduced reverse voltage VR ≤ 80% VRRM VR ≤ 50% VRRM in DC forward mode	TJ	-50 to +150 ≤ 175 ≤ 200	°C
Storage Temperature Range	TSTG	-50 to +150	°C

- NOTES:**
1. 300us Pulse Width. 2% Duty Cycle.
  2. Thermal Resistance Junction to Case.

# RATING AND CHARACTERISTIC CURVES

## 15SQ045



FIG. 1-FORWARD CURRENT DERATING CURVE

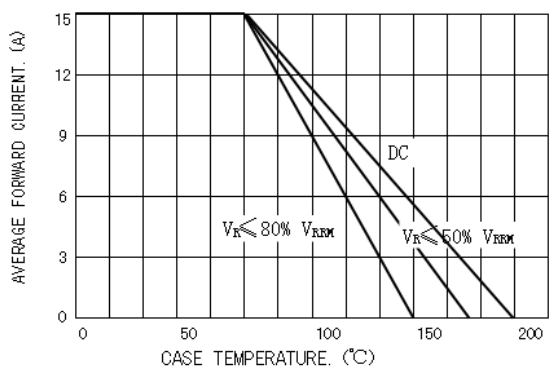


FIG. 2-MAXIMUM NON-REPETITIVE

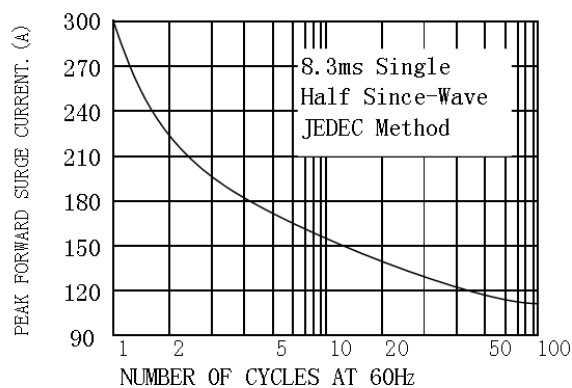


FIG. 3-TYPICAL REVERSE CHARACTERISTIC

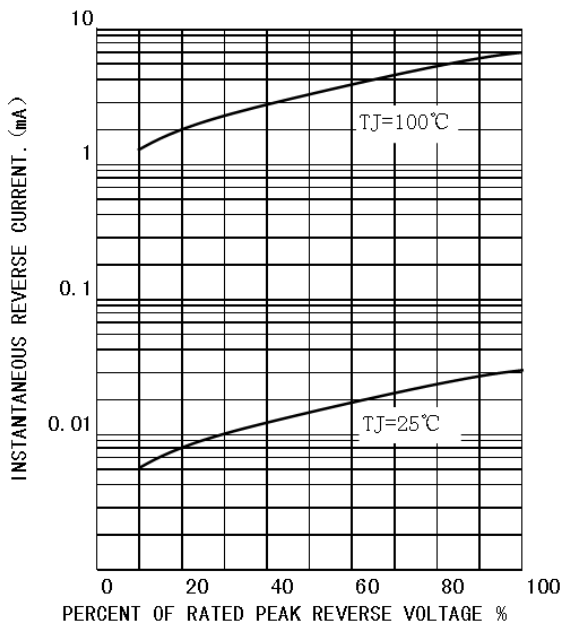


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

