

SCHOTTKY BARRIER RECTIFIERS

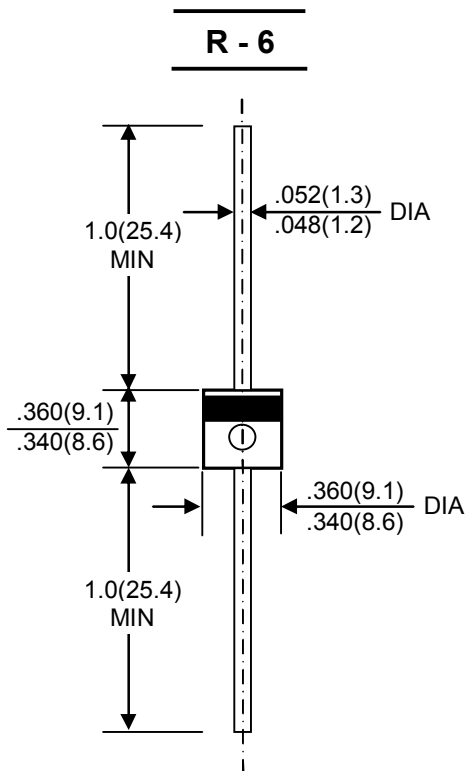
REVERSE VOLTAGE - 30 to 100Volts
FORWARD CURRENT - 15.0 Amperes

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
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- Case: 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%

| CHARACTERISTICS | SYMBOL | 15SQ030 | 15SQ035 | 15SQ040 | 15SQ045 | 15SQ050 | 15SQ060 | 15SQ080 | 15SQ100 | 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 °C | I(AV) | 15 | | | | | | | | 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 15A DC(Note1) | V _F | 0.55 | | | 0.7 | | 0.8 | | | V | |
| Maximum DC Reverse Current @T _j =25°C at Rated DC Bolcking Voltage @T _j =100°C | I _R | 0.5 | | | | | 50 | | | | mA |
| Typical Junction Capacitance (Note2) | C _J | 450 | | | | | | | | | pF |
| Typical Thermal Resistance (Note2) | R _{θjc} | 3.5 | | | | | | | | | °C/W |
| Operating Temperature Range | T _J | -55 to+200 | | | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to+200 | | | | | | | | | °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.

RATING AND CHARACTERISTIC CURVES

15SQ030 thru 15SQ100

FIG.1-FORWARD CURRENT DERATING CURVE

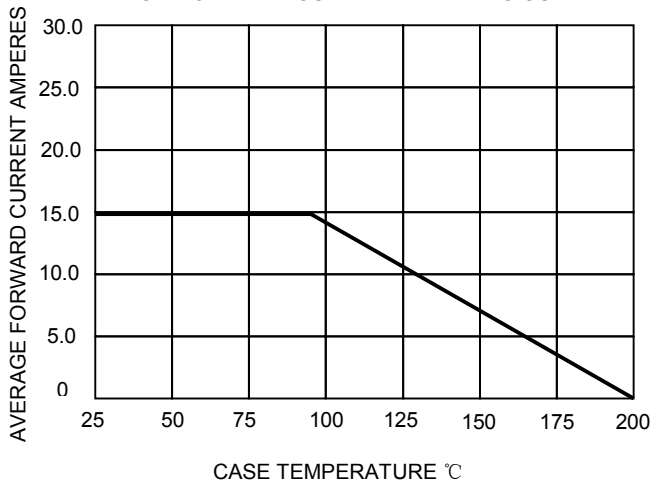


FIG.2-MAXIMUM NON-REPETITIVE SURGE

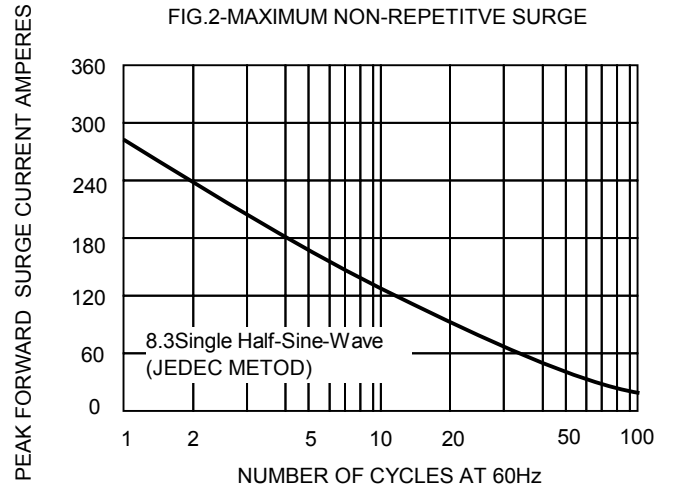


FIG.3-TYPICAL REVERSE CHARACTERISTICS

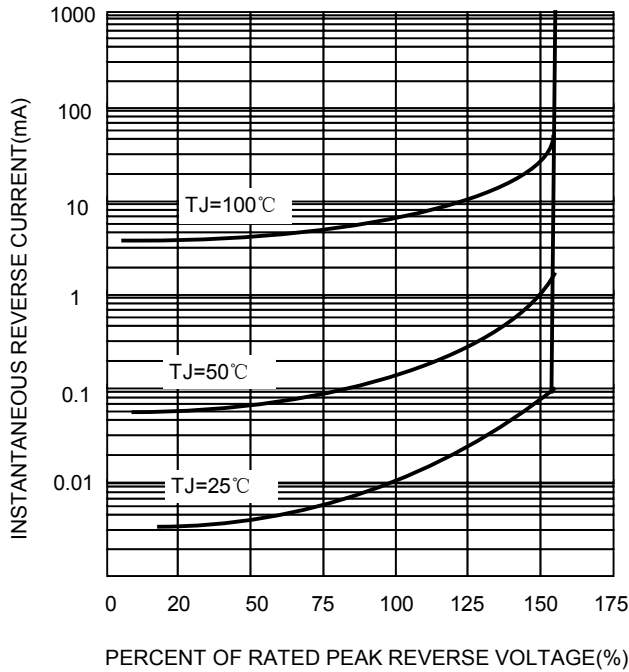


FIG.4-TYPICAL FORWARD CHARACTERISTICS

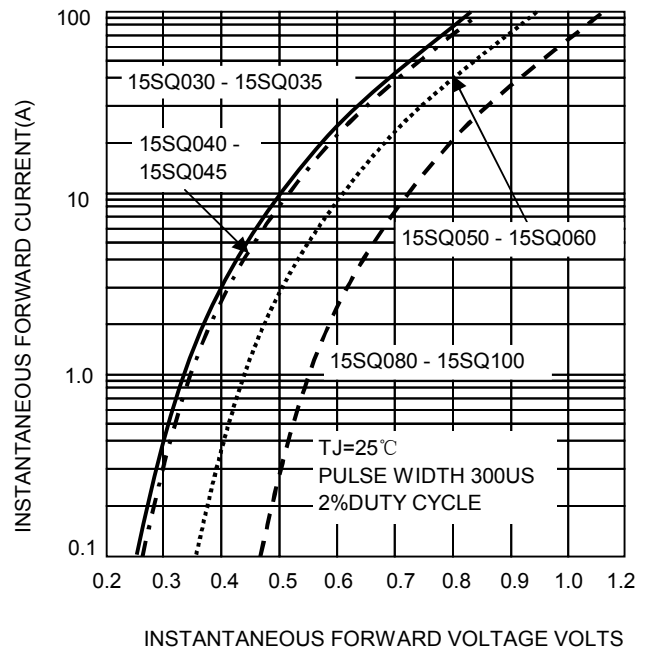


FIG.5-TYPICAL JUNCTION CAPACITANCE

