

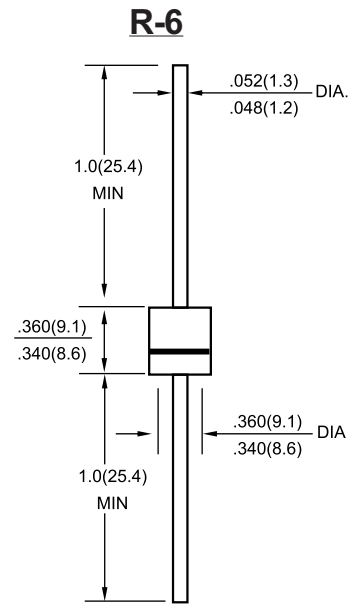


### FEATURES

- 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                                                           | VRRM   | 30         | 35      | 40      | 45      | 50      | 60      | 80      | 100     | V    |    |
| Maximum RMS Voltage                                                                              | VRMS   | 21         | 24.5    | 28      | 31.5    | 35      | 42      | 56      | 70      | V    |    |
| Maximum DC Blocking Voltage                                                                      | VDC    | 30         | 35      | 40      | 45      | 50      | 60      | 80      | 100     | V    |    |
| Maximum Average Forward Rectified Current @Tc=95 °C                                              | I(AV)  | 15         |         |         |         |         |         |         |         | A    |    |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method) | IFSM   | 275        |         |         |         |         |         |         |         | A    |    |
| Peak Forward Voltage at 15A DC(Note1)                                                            | VF     | 0.55       |         |         |         | 0.7     |         | 0.8     |         | V    |    |
| Maximum DC Reverse Current @Tj=25°C at Rated DC Bolcking Voltage @Tj=125°C                       | IR     | 0.1        |         |         |         | 50      |         |         |         |      | mA |
| Tyical Junction Capacitance (Note2)                                                              | CJ     | 450        |         |         |         |         |         |         |         | pF   |    |
| Typical Thermal Resistance (Note2)                                                               | Rθjc   | 3          |         |         |         |         |         |         |         | °C/W |    |
| Junction temperature Range in DC forward mode                                                    | TJ     | -55 to+200 |         |         |         |         |         |         |         | °C   |    |
| Storage Temperature Range                                                                        | TS     | -55 to+175 |         |         |         |         |         |         |         | °C   |    |
| ESD                                                                                              | VESD   | 15000      |         |         |         |         |         |         |         | V    |    |

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

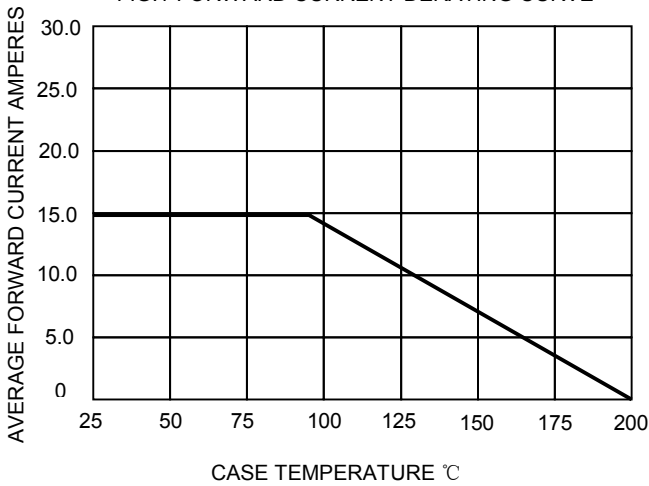


FIG.2-MAXIMUM NON-REPETITIVE SURGE

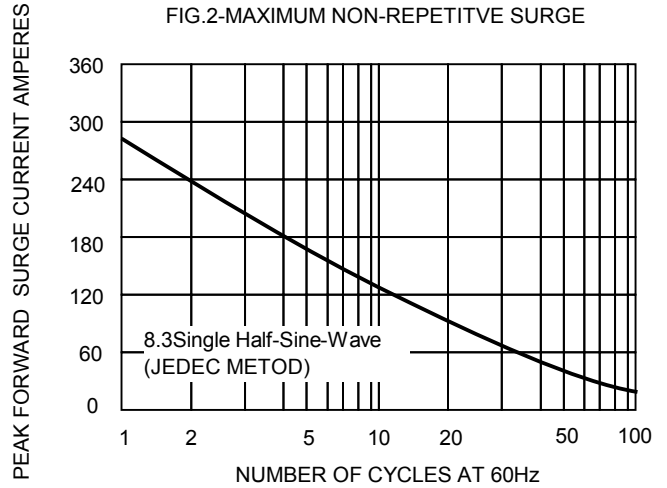


FIG.3-TYPICAL REVERSE CHARACTERISTICS

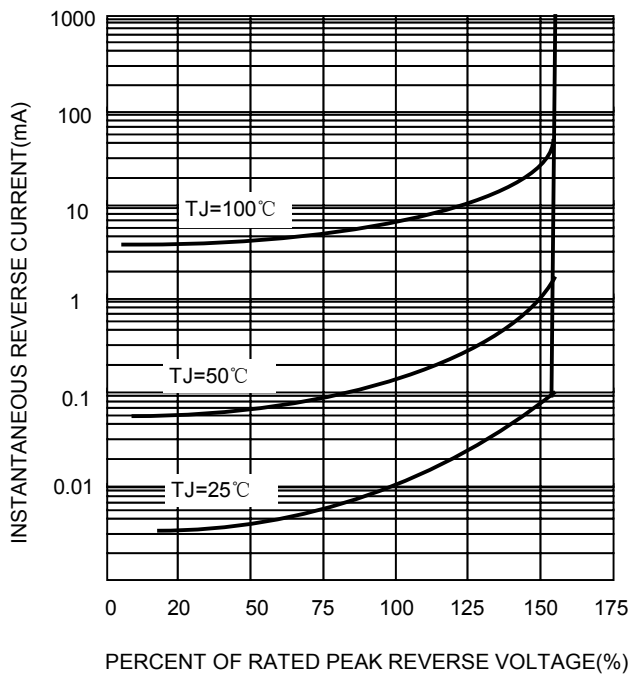


FIG.4-TYPICAL FORWARD CHARACTERISTICS

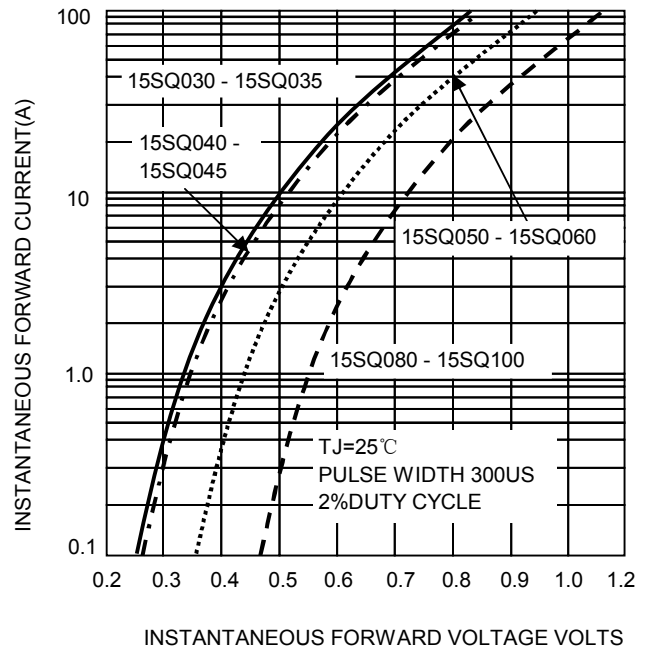


FIG.5-TYPICAL JUNCTION CAPACITANCE

