

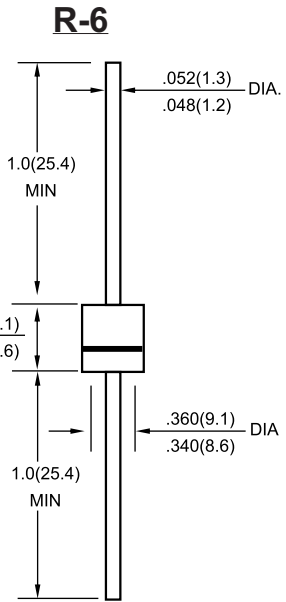


Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

Mechanical Data

- Case: JEDEC R-6 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.07 ounces , 2.1 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version,**



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@Tc=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} | 320 | | | | | | | | A |
| Peak Forward Voltage at 10A DC(Note1) | V _F | 0.55 | | | | 0.7 | | 0.8 | | V |
| Maximum DC Reverse Current @Tj=25°C | I _R | 0.5 | | | | | | 0.1 | | mA |
| at Rated DC Blocking Voltage @Tj=100°C | | 50 | | | | | | 10 | | |
| Typical Junction Capacitance (Note2) | C _J | 450 | | | | | | | | PF |
| Typical Thermal Resistance (Note3) | R _J | 3.0 | | | | | | | | °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%Dudy Cycle.

2.Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal Resistance Junction to Case.



Ratings and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

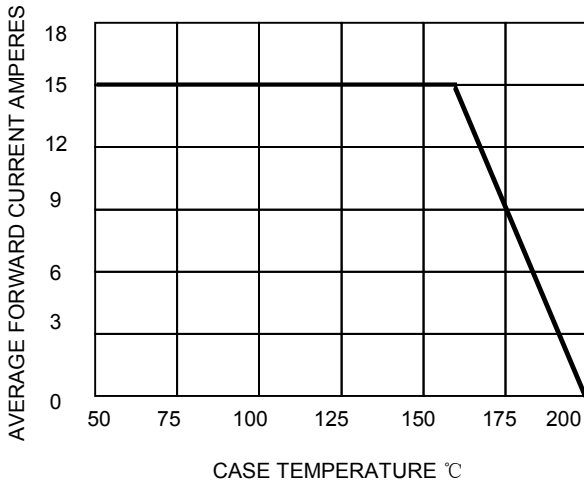


FIG.2-MAXIMUM NON-REPETITIVE SURGE

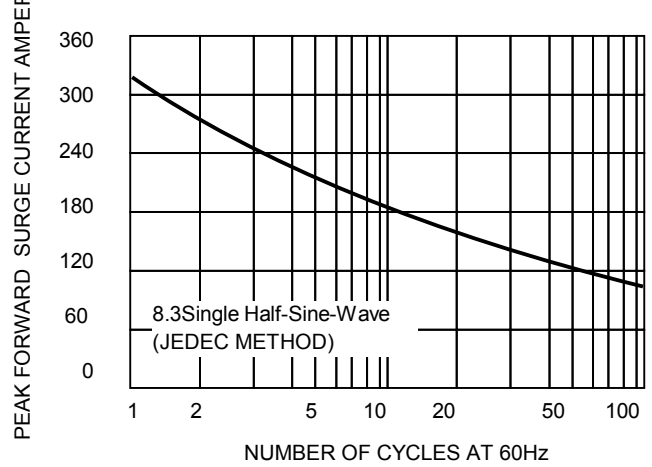


FIG.3-TYPICAL REVERSE CHARACTERISTICS

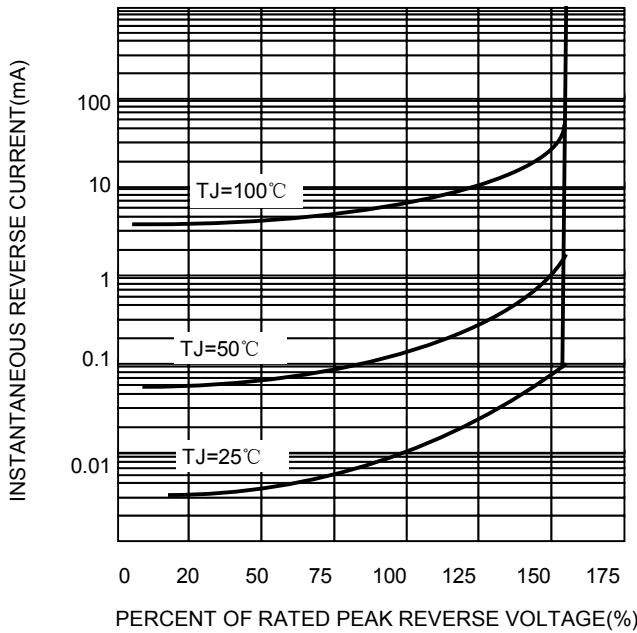


FIG.4-TYPICAL FORWARD CHARACTERISTICS

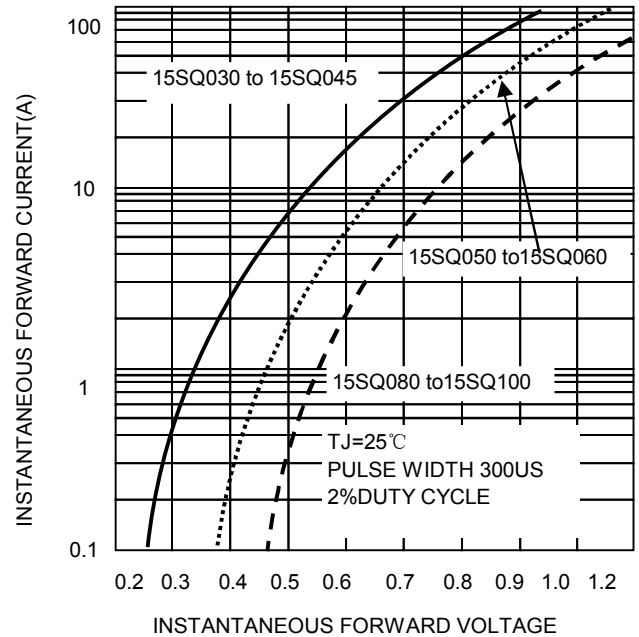
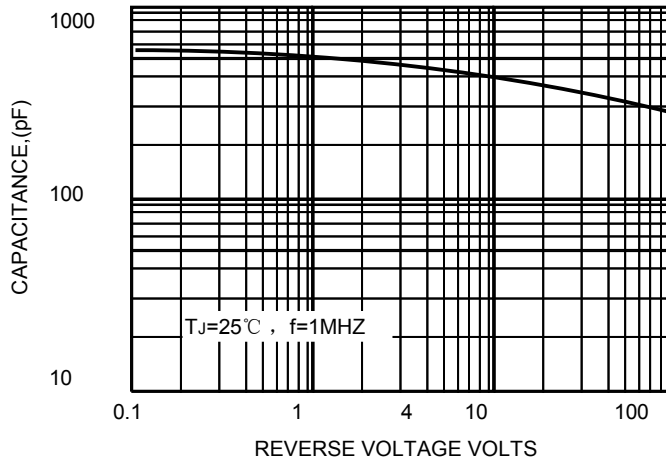


FIG.5-TYPICAL JUNCTION CAPACITANCE



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|----------|----------------|----------------|--------------|--------------|
| R-6 | 500/AMMO | 5000 | 44X28X31 | 12.00 | 10.00 |