

## 30.0A GLASS PASSIVATED SUPERFAST RECTIFIER

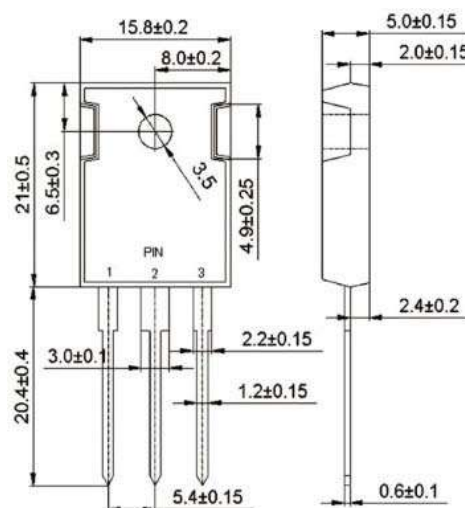
### Features

- Glass Passivated Die Construction
- Super-Fast Switching
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: TO-3P/TO-247AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 11.5 cm·kg (10 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version**

### TO-3P/TO-247AD



### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic                                                                                                        | Symbol                            | KMUR3020PT  | KMUR3040PT | KMUR3060PT | Unit |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------------|------------|------|
| Peak Repetitive Reverse Voltage                                                                                       | V <sub>RRM</sub>                  | 200         | 400        | 600        | V    |
| Working Peak Reverse Voltage                                                                                          | V <sub>RWM</sub>                  |             |            |            |      |
| DC Blocking Voltage                                                                                                   | V <sub>R</sub>                    |             |            |            |      |
| RMS Reverse Voltage                                                                                                   | V <sub>R(RMS)</sub>               | 140         | 280        | 420        | V    |
| Average Rectified Output Current @T <sub>C</sub> = 125°C                                                              | I <sub>O</sub>                    | 30.0        |            |            | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>                  | 350         |            |            | A    |
| Forward Voltage @I <sub>F</sub> =15.0A                                                                                | V <sub>FM</sub>                   | 0.98        | 1.3        | 1.6        | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                   | I <sub>RM</sub>                   | 10<br>400   |            |            | μA   |
| Reverse Recovery Time (Note 1)                                                                                        | t <sub>rr</sub>                   | 50          |            |            | nS   |
| Typical Junction Capacitance (Note 2)                                                                                 | C <sub>j</sub>                    | 170         |            | 130        | pF   |
| Operating and Storage Temperature Range                                                                               | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150 |            |            | °C   |

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, IRR = 0.25A.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

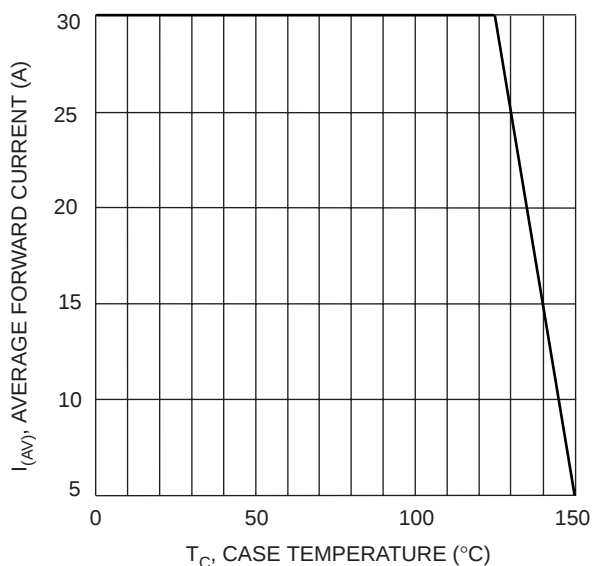


Fig. 1 Forward Current Derating Curve

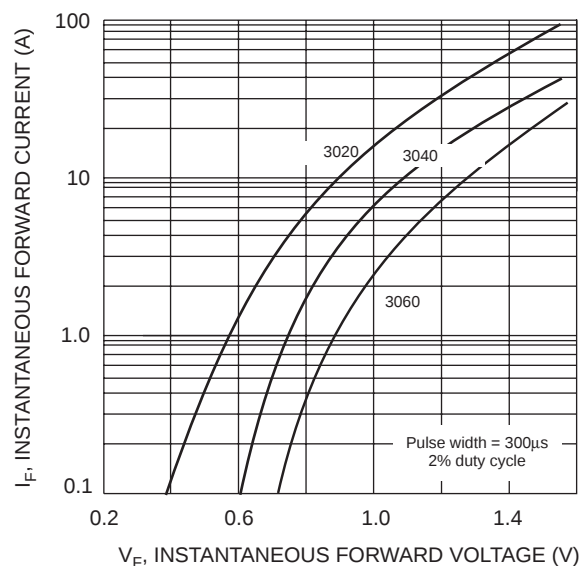


Fig. 2 Typical Forward Characteristics

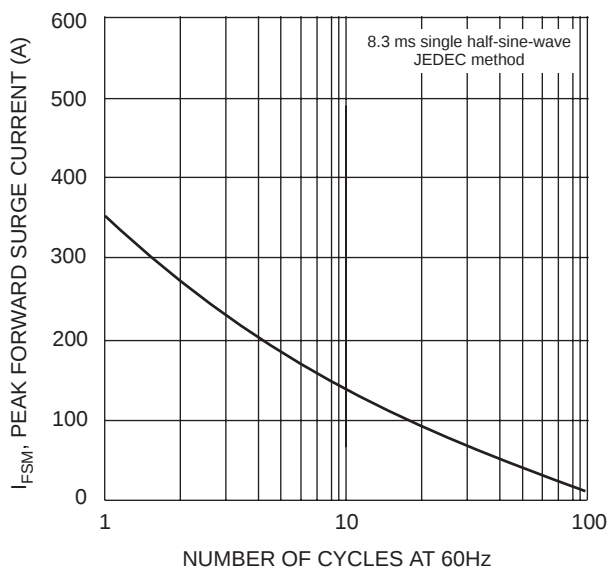


Fig. 3 Max Non-Repetitive Surge Current

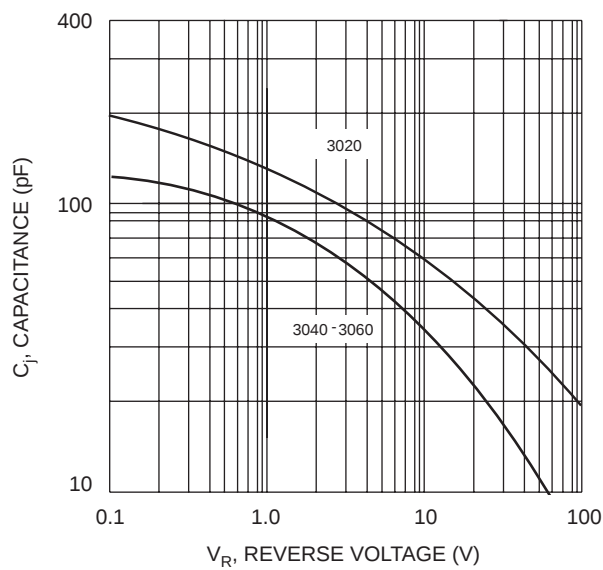


Fig. 4 Typical Junction Capacitance