# Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

# MUR1010 – MUR1060

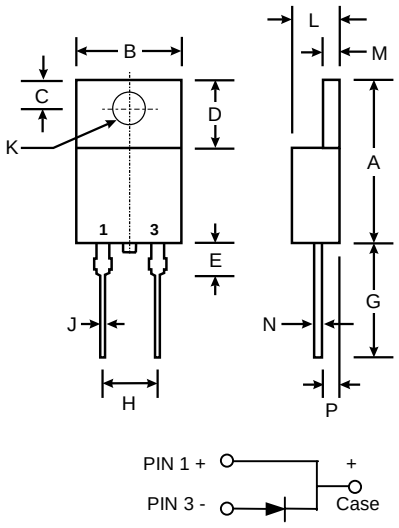
**10.0A GLASS PASSIVATED SUPERFAST RECTIFIER**

## 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-220AC, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**




| TO-220AC | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 14.22 | 15.88 |
| **B** | 9.57 | 10.57 |
| **C** | 2.54 | 3.43 |
| **D** | 5.80 | 6.80 |
| **E** | — | 6.35 |
| **G** | 12.70 | 14.73 |
| **H** | 4.88 | 5.28 |
| **J** | 0.51 | 1.14 |
| **K** | 3.53∅ | 4.14∅ |
| **L** | 3.56 | 4.83 |
| **M** | 1.07 | 1.47 |
| **N** | 0.30 | 0.64 |
| **P** | 2.03 | 2.92 |
| **All Dimensions in mm** | | |

## Maximum Ratings and Electrical Characteristics @$T_A$=25°C unless otherwise specified

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

| Characteristic | Symbol | MUR 1010 | MUR 1020 | MUR 1030 | MUR 1040 | MUR 1050 | MUR 1060 | Unit |
|---|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 100 | 200 | 300 | 400 | 500 | 600 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 70 | 140 | 210 | 280 | 350 | 420 | V |
| Average Rectified Output Current @$T_C$ = 100°C | $I_O$ | 10.0 | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 90 | | | | | | A |
| Forward Voltage @$I_F$= 10.0A | $V_{FM}$ | 1.0 | | 1.3 | | 1.7 | | V |
| Peak Reverse Current @$T_A$ = 25°C<br>At Rated DC Blocking Voltage @$T_A$ = 100°C | $I_{RM}$ | 10<br>400 | | | | | | μA |
| Reverse Recovery Time (Note 1) | $t_{rr}$ | 35 | | | | | | nS |
| Typical Junction Capacitance (Note 2) | $C_j$ | 200 | | | | | | pF |
| Operating and Storage Temperature Range | $T_j$, $T_{STG}$ | -55 to +150 | | | | | | °C |

Note: 1. Measured with IF = 0.5A, IR = 1.0A, IRR = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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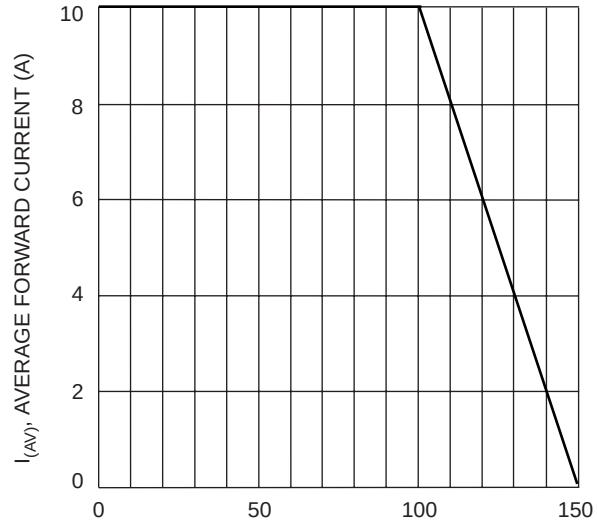


Fig. 1 Forward Current Derating Curve

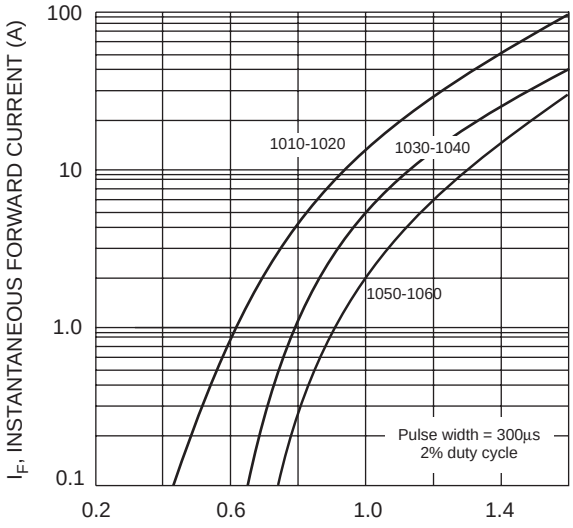


Fig. 2 Typical Forward Characteristics

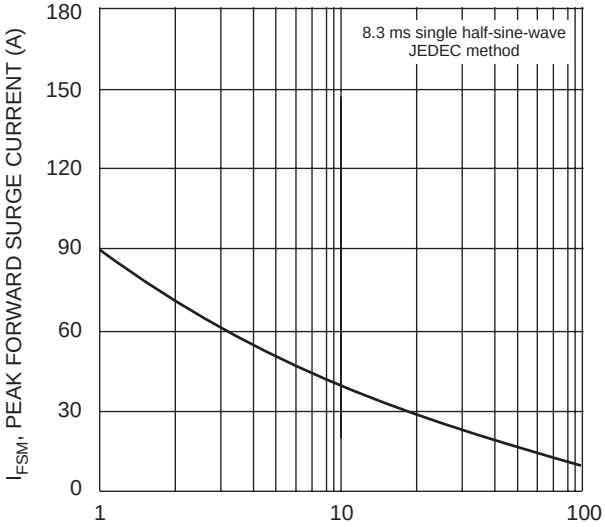


Fig. 3 Max Non-Repetitive Surge Current

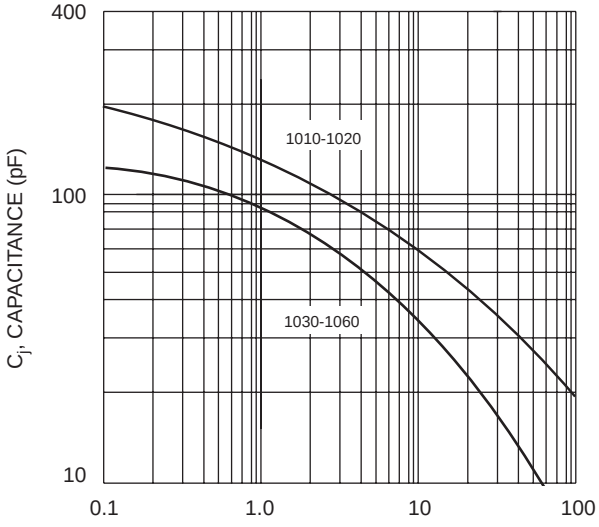


Fig. 4 Typical Junction Capacitance