

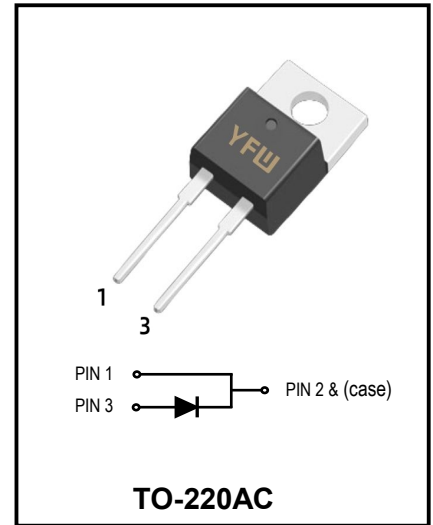
Super Fast Rectifiers
Reverse Voltage - 800V
Forward Current - 10A

FEATURES

- ◆ Glass passivated chip junctions
- ◆ Super fast recovery time for switching mode application
- ◆ High Forward Surge Capability
- ◆ Low Reverse Current
- ◆ Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- ◆ Circuit figure: Single positive
- ◆ Leads: Solderable per mil-std-202, Method 208
- ◆ Polarity: as marked
- ◆ Mounting torque: 5 in-lbs maximum
- ◆ Terminals: Puretin plated



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C)

| RATINGS | SYMBOL | Value | Units |
|--|-----------------|------------|-------|
| Maximum repetitive reverse voltage | V_{RRM} | 800 | V |
| Maximum RMS voltage | V_{RMS} | 560 | V |
| Maximum DC blocking voltage | V_{DC} | 800 | V |
| Maximum average forward current | I_{AV} | 10 | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 150 | A |
| Typical thermal resistance per diode (Note 1) | $R_{\theta-JC}$ | 4.0 | °C/W |
| Operation Junction Temperature and Storage Temperature | T_J, T_{STG} | -55 ~ +150 | °C |
| CHARACTERISTICS | | | |
| Typical forward voltage per leg at 10A | V_F | 2.80 | V |
| Maximum average reverse current at rated DC blocking voltage | I_R | 5 250 | μA |
| Typical reverse recovery time (Note 2) | T_{RR} | 35 | nS |

Notes: 1. Thermal resistance from junction to case.
 2. Test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

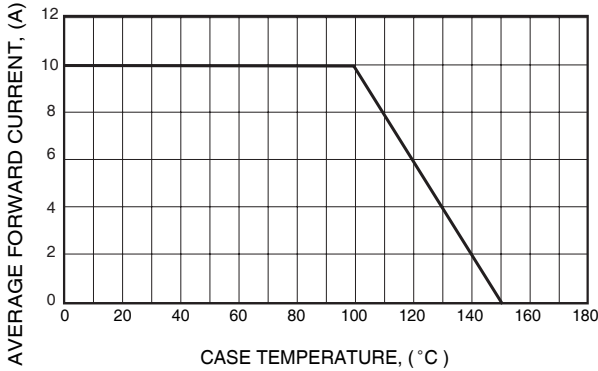


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

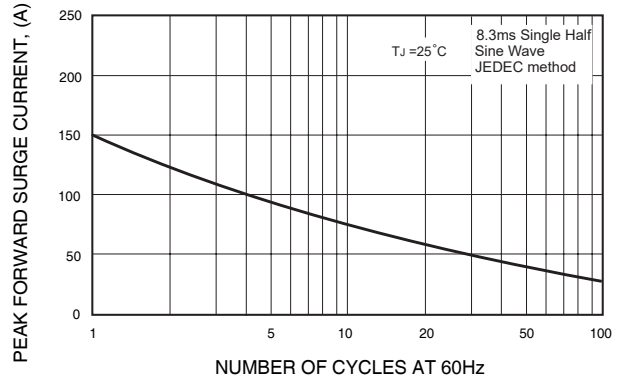


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

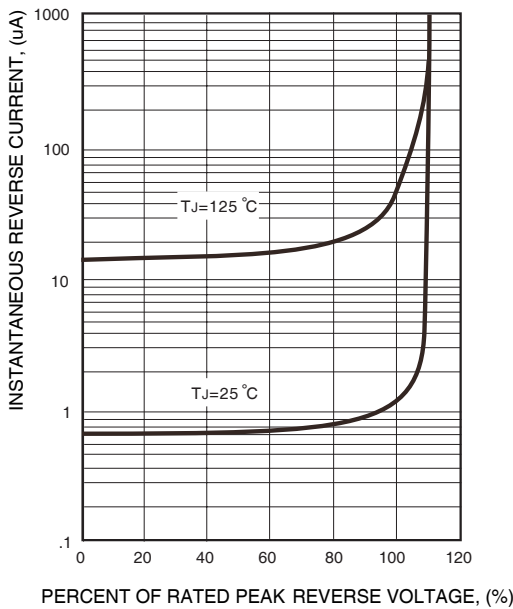


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

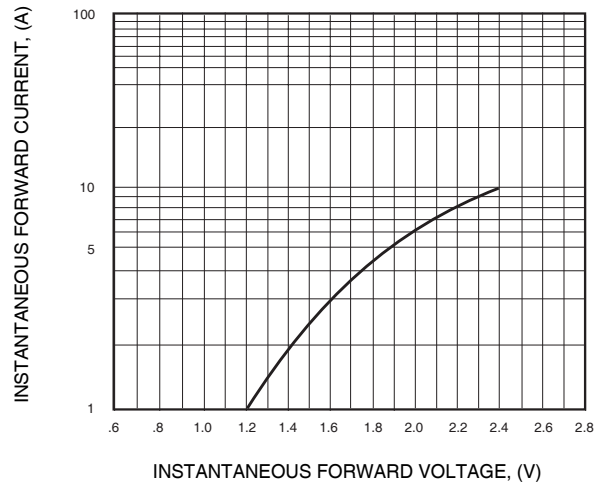
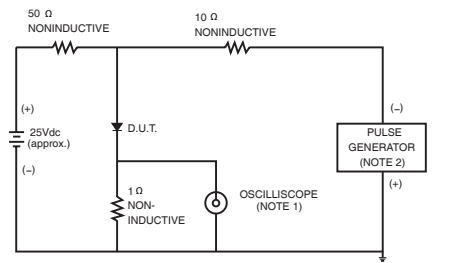
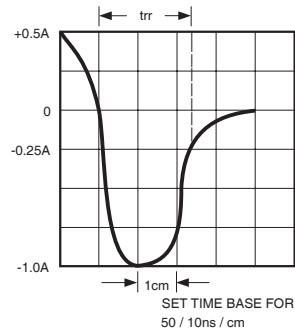


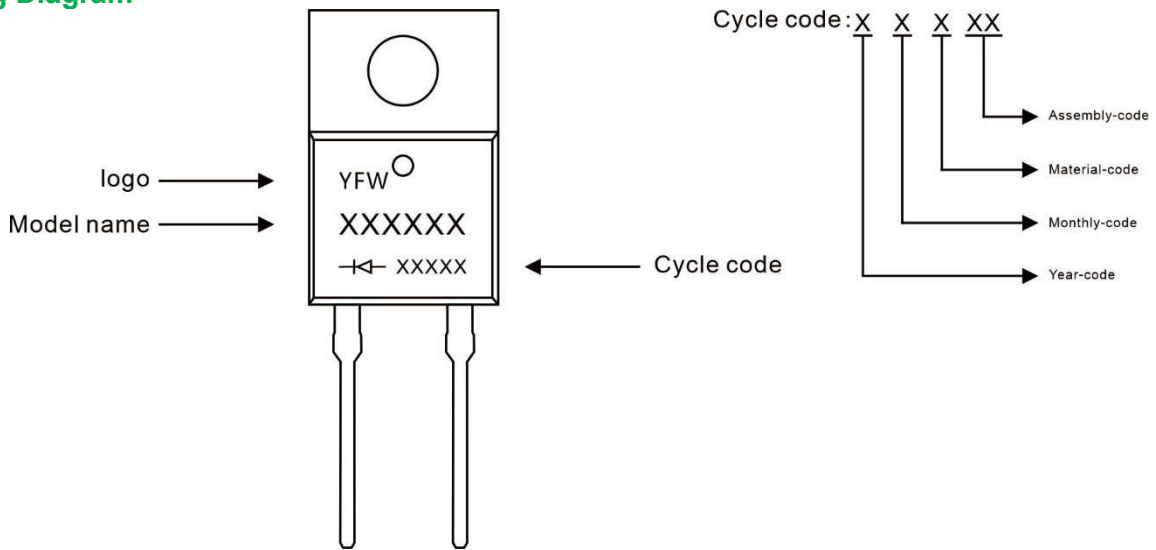
FIG. 6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.



Marking Diagram



Ordering information

| Model name | Package | Unit Weight | Base Quantity | Packing Quantity |
|------------|----------|---------------|---------------|----------------------------|
| MUR1080DA | TO-220AC | 0.067oz(1.9g) | 50pcs/tube | 1000PCS/Box 5000PCS/Carton |

Package Dimensions

TO-220AC

| Dim | Millimeter | | Inches | |
|-----|------------|-------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 4.34 | 4.67 | 0.171 | 0.184 |
| A1 | 2.52 | 2.82 | 0.099 | 0.111 |
| b | 0.71 | 0.91 | 0.028 | 0.036 |
| b1 | 1.17 | 1.37 | 0.046 | 0.054 |
| c | 0.30 | 0.50 | 0.012 | 0.020 |
| c1 | 1.17 | 1.37 | 0.046 | 0.054 |
| D | 9.90 | 10.20 | 0.390 | 0.402 |
| E | 8.50 | 8.90 | 0.335 | 0.350 |
| E1 | 12.00 | 12.50 | 0.472 | 0.492 |
| e | 2.44 | 2.64 | 0.096 | 0.104 |
| e1 | 4.88 | 5.28 | 0.192 | 0.208 |
| F | 2.60 | 2.80 | 0.102 | 0.110 |
| L | 13.20 | 13.80 | 0.520 | 0.543 |
| L1 | 3.80 | 4.20 | 0.150 | 0.165 |
| Φ | 3.60 | 3.96 | 0.142 | 0.156 |

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