

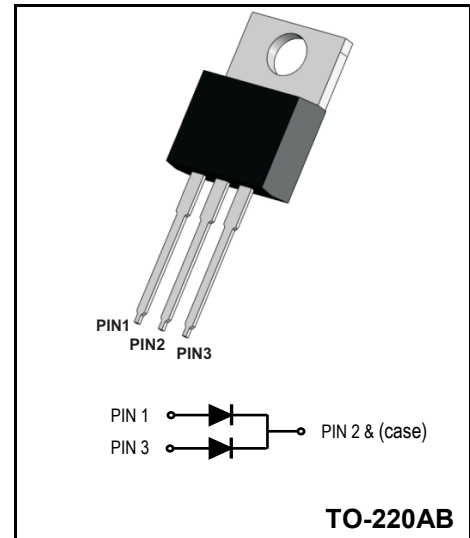
**Super Fast Rectifiers**

**Reverse Voltage - 600V**

**Forward Current - 20A**

**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: Common Cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams

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

| RATINGS                                                                                                    | SYMBOL          | Value      | Units   |
|------------------------------------------------------------------------------------------------------------|-----------------|------------|---------|
| Maximum repetitive reverse voltage                                                                         | $V_{RRM}$       | 600        | V       |
| Maximum RMS voltage                                                                                        | $V_{RMS}$       | 420        | V       |
| Maximum DC blocking voltage                                                                                | $V_{DC}$        | 600        | V       |
| Maximum average forward current                                                                            | $I_{AV}$        | 20         | A       |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                         | $I_{FSM}$       | 300        | A       |
| Typical thermal resistance per diode (Note 1)                                                              | $R_{\theta-JC}$ | 2.5        | °C/W    |
| Operation Junction Temperature and Storage Temperature                                                     | $T_J, T_{STG}$  | -55 ~ +150 | °C      |
| <b>CHARACTERISTICS</b>                                                                                     |                 |            |         |
| Typical forward voltage per leg at 10A                                                                     | $V_F$           | 1.65       | V       |
| Maximum average reverse current<br>at rated DC blocking voltage<br>$T_J=25^{\circ}C$<br>$T_J=125^{\circ}C$ | $I_R$           | 5<br>250   | $\mu A$ |
| Typical reverse recovery time (Note 2)                                                                     | $T_{RR}$        | 35         | nS      |

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

**Ratings And Characteristic Curves**

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

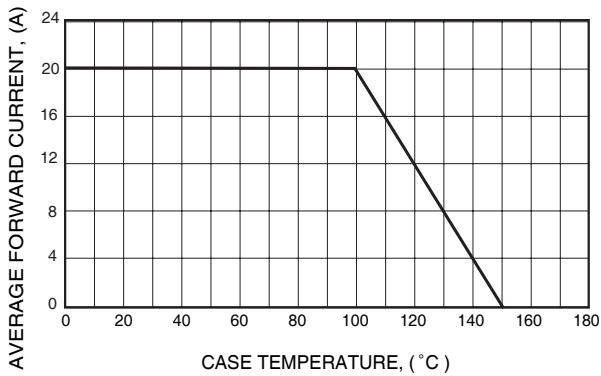


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

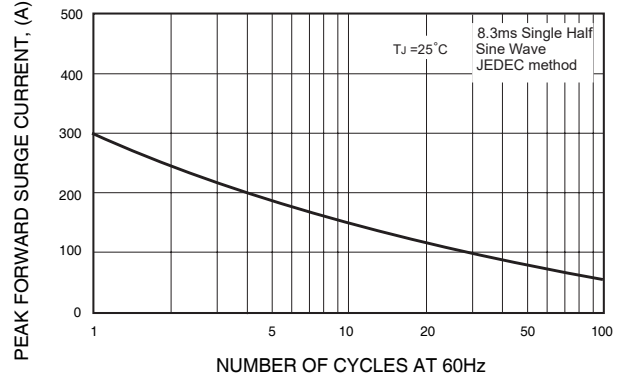


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

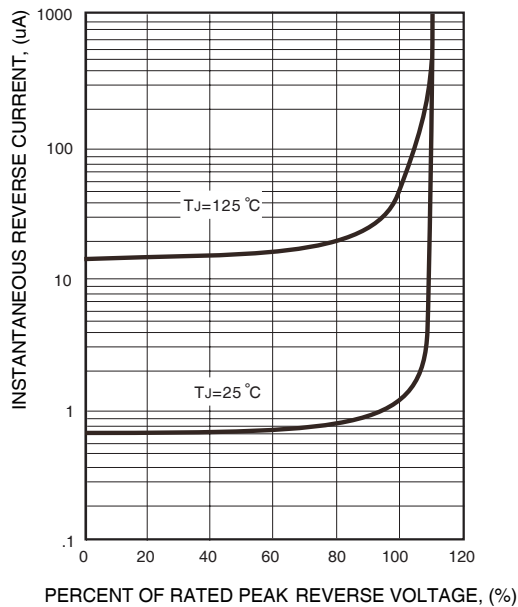


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

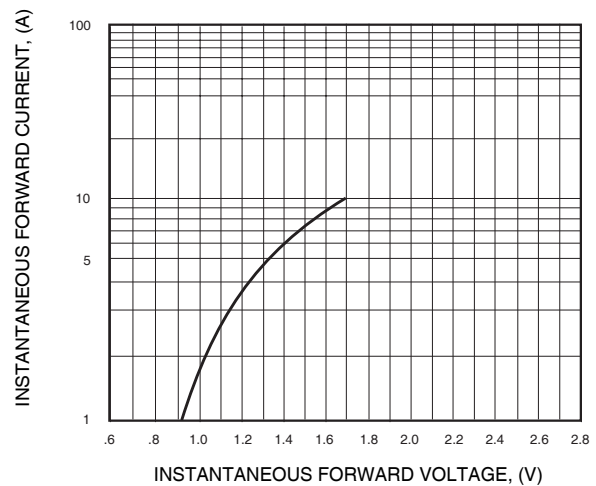
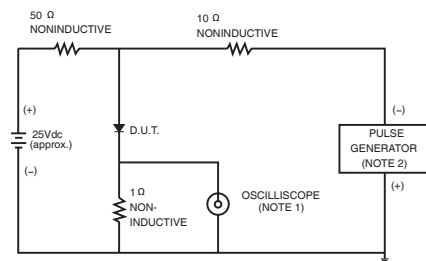
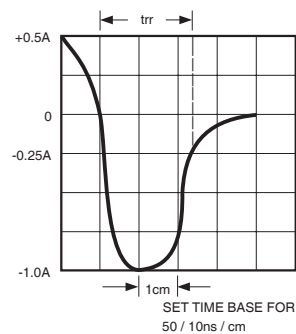


FIG. 6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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



Package Outline Dimensions Millimeters

