

**REVERSE VOLTAGE:** 40 TO 200 VOLTS  
**FORWARD CURRENT:** 20 AMPERE

#### FEATURES

- Low switching noise
- Low forward voltage drop
- High current capability
- High switching capability
- High surge capability
- High reliability

#### MECHANICAL DATA

Case: Molded plastic, TO-220AB

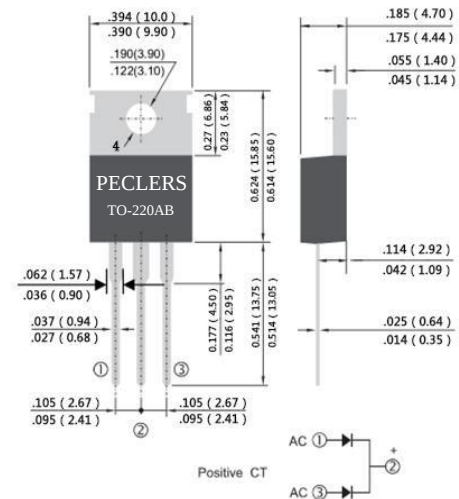
Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.067 ounce, 1.89gram



Dimensions in inches and (millimeters)

#### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| PARAMETER                                                                                                      | Symbols            | MBR         |             |        |        |        |         |         |         | Units |
|----------------------------------------------------------------------------------------------------------------|--------------------|-------------|-------------|--------|--------|--------|---------|---------|---------|-------|
|                                                                                                                |                    | 2040CT      | 2045CT      | 2050CT | 2060CT | 2080CT | 20100CT | 20150CT | 20200CT |       |
| Maximum Recurrent Peak Reverse Voltage                                                                         | V <sub>RRM</sub>   | 40          | 45          | 50     | 60     | 80     | 100     | 150     | 200     | Volts |
| Maximum RMS Voltage                                                                                            | V <sub>RMS</sub>   | 28          | 31.5        | 35     | 42     | 56     | 70      | 105     | 140     | Volts |
| Maximum DC Blocking Voltage                                                                                    | V <sub>DC</sub>    | 40          | 45          | 50     | 60     | 80     | 100     | 150     | 200     | Volts |
| Maximum Average Forward Current                                                                                | I <sub>F(AV)</sub> | 20          |             |        |        |        |         |         |         | Amp   |
| Non-Repettive Peak Forward Surge Current<br>8.3ms Single haf sine-wave superimposed on rated load(JEDECMethod) | I <sub>FSM</sub>   | 200         |             |        |        |        |         |         |         | Amp   |
| Rating for fusing(t<8.3ms)                                                                                     | I <sup>2</sup> t   | 16.6        |             |        |        |        |         |         |         | A2 s  |
| Maximum Forward Voltage@IF= 10.0A                                                                              | V <sub>F</sub>     | 0.65        |             | 0.75   |        | 0.85   |         | 0.92    |         | Volts |
| Maximum DC Reverse Current at Rated    Rated<br>TC=25℃<br>DC Blocking Voltage per element<br>TC=100℃           | I <sub>R</sub>     | 0.05<br>20  |             |        |        |        |         |         |         | mAmp  |
| Typical Thermal Resistance                                                                                     | RθJC               | 2           |             |        |        |        |         |         |         | ℃/W   |
| Operating Junction Temperature Range                                                                           | Tj&Tstg            | -55 to +150 | -55 to +175 |        |        |        |         |         |         | ℃     |

#### NOTES:

Both Bonding and Chip structure are available.

#### RATING AND CHARACTERISTIC CURVES

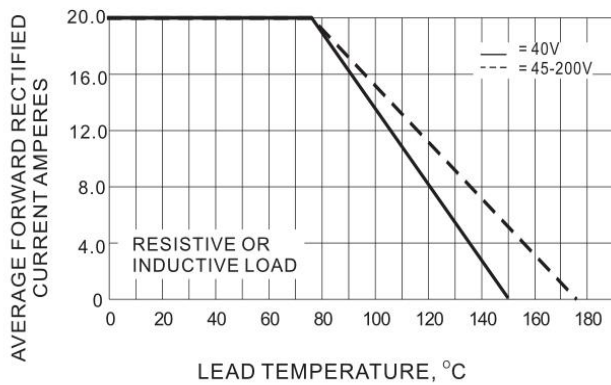


Fig.1 FORWARD CURRENT DERATING CURVE

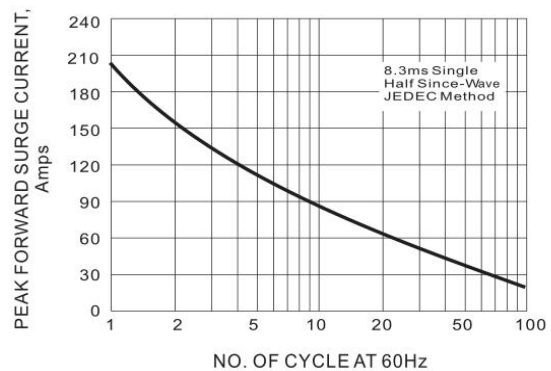


Fig.2 MAXIMUM NON-REPETITIVE SURGE

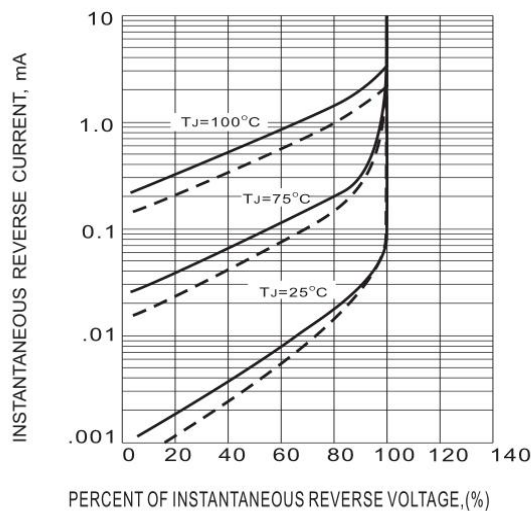


Fig.3 TYPICAL REVERSE CHARACTERISTICS

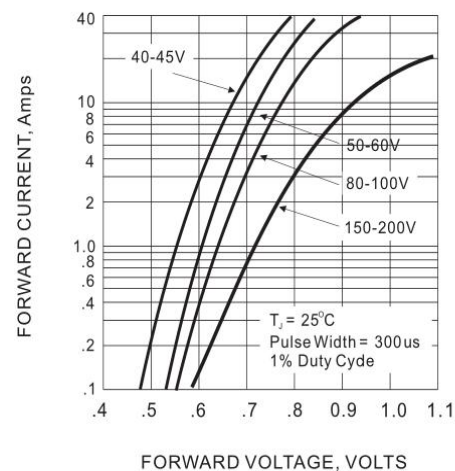


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

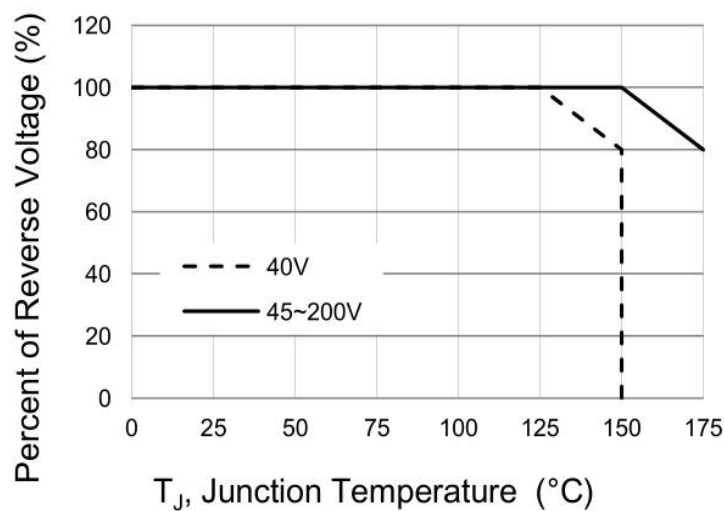


Fig.5 Operating Temperature Derating Curve