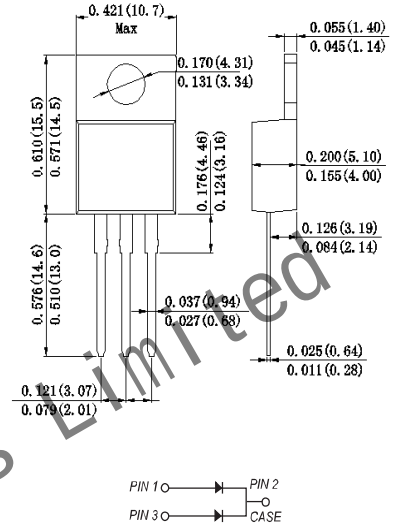


**10.0Amp Schottky Barrier Rectifiers**
**Features**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
260°C/10 seconds at terminals

**TO-220AB**

**Mechanical Data**

**Case** : Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

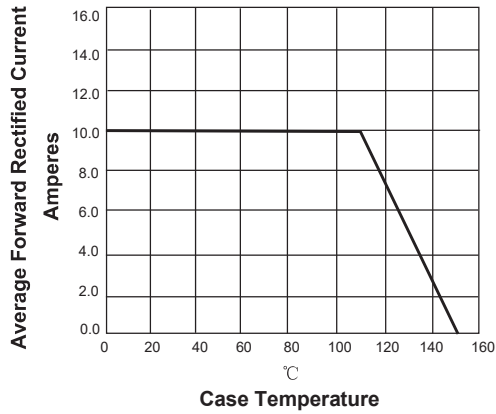
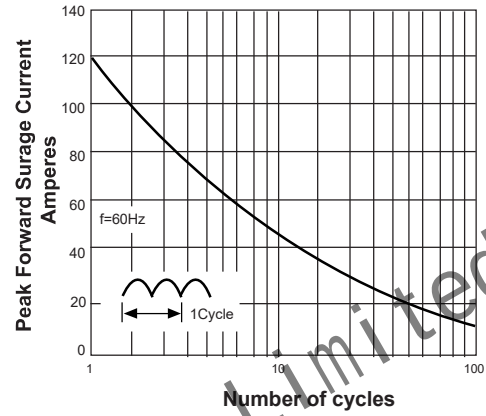
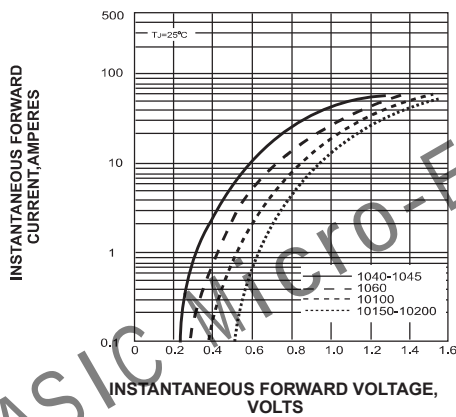
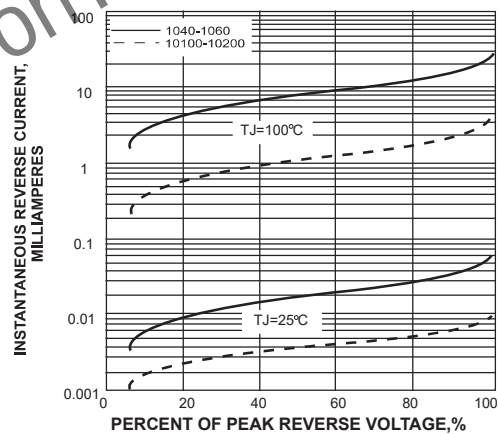
**Mounting Position** : Any

**Maximum Ratings And Electrical Characteristics**

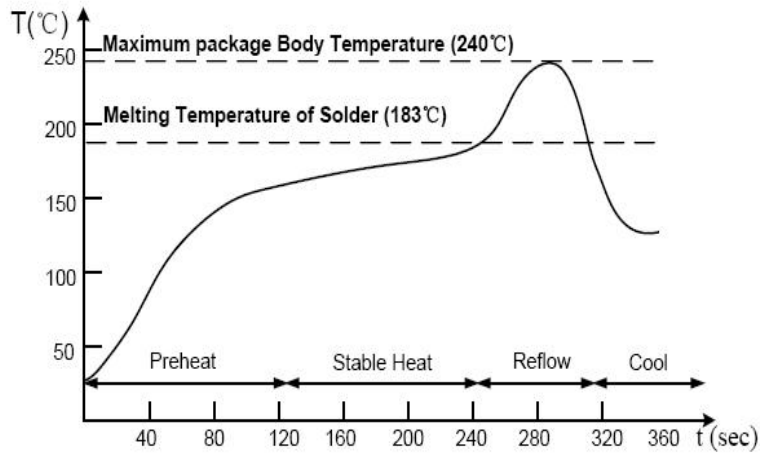
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                    | SYMBOLS         | ASBMBR10<br>40CTUX0 | ASBMBR10<br>45CTUX0 | ASBMBR10<br>60CTUX0 | ASBMBR10<br>100CTUX0 | ASBMBR10<br>150CTUX0 | ASBMBR10<br>200CTUX0 | UNITS              |
|--------------------------------------------------------------------------------------------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|--------------------|
| Maximum repetitive peak reverse voltage                                                                      | $V_{RRM}$       | 40                  | 45                  | 60                  | 100                  | 150                  | 200                  | V                  |
| Maximum RMS voltage                                                                                          | $V_{RMS}$       | 28                  | 31.5                | 42                  | 70                   | 105                  | 140                  | V                  |
| Maximum DC blocking voltage                                                                                  | $V_{DC}$        | 40                  | 45                  | 60                  | 100                  | 150                  | 200                  | V                  |
| Maximum average forward rectified current at $T_c=110^\circ\text{C}$ per device per diode                    | $I_{AV}$        | 10.0<br>5.0         |                     |                     |                      |                      |                      | A                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                           | $I_{FSM}$       | 120.0               |                     |                     |                      |                      |                      | A                  |
| Maximum instantaneous forward voltage per diode at 5.0A                                                      | $V_F$           | 0.55                |                     | 0.75                | 0.85                 | 0.95                 |                      | V                  |
| Maximum DC reverse current at rated DC blocking voltage<br>$T_A=25^\circ\text{C}$<br>$T_A=125^\circ\text{C}$ | $I_R$           |                     | 0.5<br>50           |                     |                      | 0.05<br>10           |                      | mA                 |
| Typical thermal resistance                                                                                   | $R_{\theta JC}$ | 3.5                 |                     |                     |                      |                      |                      | $^\circ\text{C/W}$ |
| Operating junction temperature range                                                                         | $T_J$           | -55 to +150         |                     |                     |                      |                      |                      | $^\circ\text{C}$   |
| Storage temperature range                                                                                    | $T_{STG}$       | -55 to +150         |                     |                     |                      |                      |                      | $^\circ\text{C}$   |

## Ratings And Characteristic Curves

**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**

**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**

**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**

**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**


## Suggested Soldering Temperature Profile



### Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

## Package Information

### Tube Package

| Package | Tube (mm)    | Q'TY/Tube (Kpcs) | Box Size (mm) | QTY/Box (Kpcs) | Carton Size (mm) | Q'TY/Carton (Kpcs) |
|---------|--------------|------------------|---------------|----------------|------------------|--------------------|
| TO      | 525*31.9*6.4 | 0.05             | 545*150*45    | 1.0            | 575*245*170      | 5.0                |