



PFC Device Corporation

PFR60L60PT **PFR60L60PT-L**

60A 60V MOS Schottky Rectifier

Major ratings and characteristics

| Characteristics | Values | Units |
|--------------------------------------|---------------|------------|
| $I_{F(AV)}$ Rectangular Waveform | 30×2 | A |
| V_{RRM} | 60 | V |
| $V_F@ 30A, T_J=125^\circ C$ | 0.61 | V, typ. |
| T_J Operating Junction Temperature | -65 to +150 | $^\circ C$ |

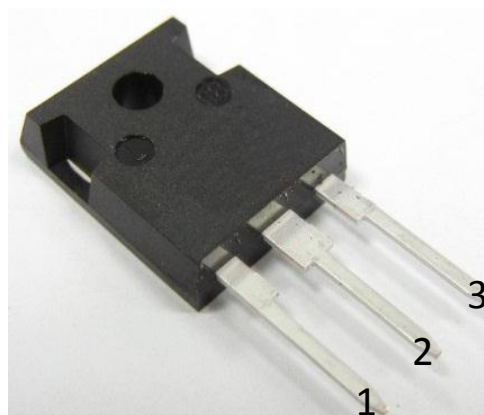
Features

- Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150 $^\circ C$ Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

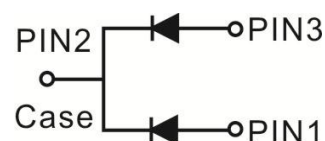
Typical Applications

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications

PFR60L60PT



TO-247AB



1. Characteristics

Maximum Ratings Characteristics

($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Values | Units |
|--|----------------|--------------|-------------------------------|
| DC Blocking Voltage | V_{RM} | 60 | Volts |
| Working Peak Reverse Voltage | V_{RWM} | | |
| Peak Repetitive Reverse Voltage | V_{RRM} | | |
| Average Rectified Forward Current Per device | I_o | 60 | Amps |
| (Rated VR-20Khz Square Wave) - 50% duty cycle | | | |
| Peak Forward Surge Current - 1/2 60hz | I_{FSM} | 400 | Amps |
| Peak Repetitive Reverse Surge Current (2uS-1Khz) | I_{RRM} | 2 | Amps |
| Typical Thermal Resistance (per leg) | $R\theta_{JC}$ | 1.5 | $^{\circ}\text{C} / \text{W}$ |
| Maximum Rate of Voltage Change (at Rated VR) | dv/dt | 10000 | V/uS |
| Operating Junction Temperature | T_J | - 65 to +150 | $^{\circ}\text{C}$ |
| Storage Junction Temperature | T_{STG} | - 65 to +150 | |

Electrical Characteristics - (per leg)

($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Test Conditions | | Symbol | Typ. | Max. | Units |
|---|--------------------|-------------|--------|------|------|-------|
| Instantaneous Forward Voltage | IF = 30 A | TJ = 25 °C | VF* | ---- | 0.65 | Volts |
| | | TJ = 125 °C | | 0.61 | 0.62 | |
| Instantaneous Reverse Current | At V _{RM} | TJ = 25 °C | IR* | ---- | 500 | uA |
| | | TJ = 125 °C | | ---- | 100 | mA |
| * Pulse width < 300 uS, Duty cycle < 2% | | | | | | |



2. Characteristics Curves

Ratings and Characteristics Curves

($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

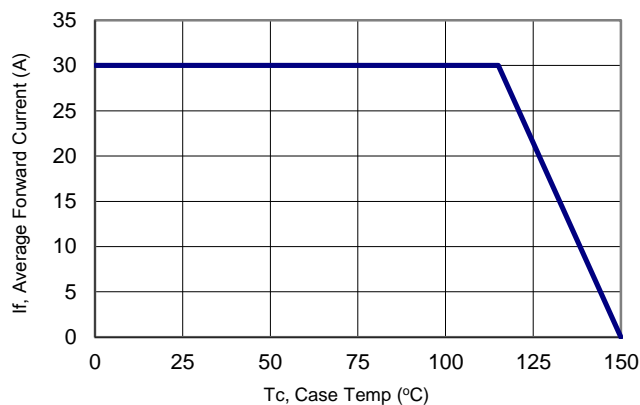


Figure 1: Current Derating, Case

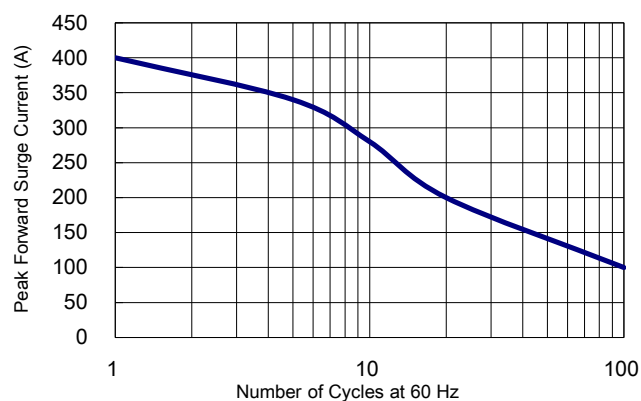


Figure 2: Maximum Repetitive Surge Current

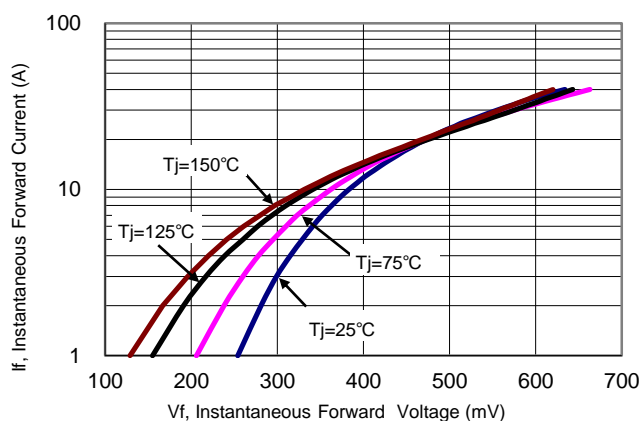


Figure 3: Typical Forward Voltage

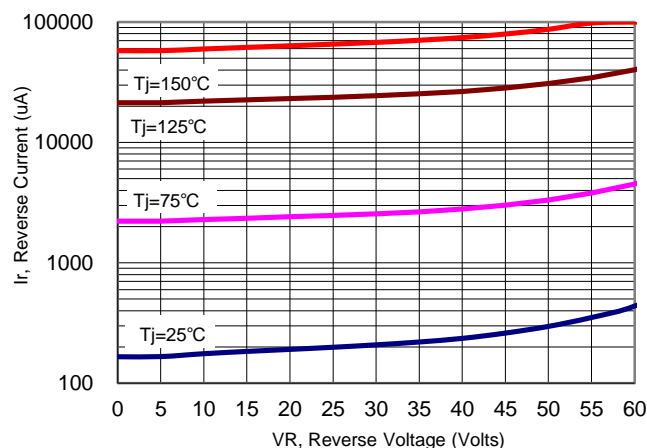


Figure 4: Typical Reverse Current

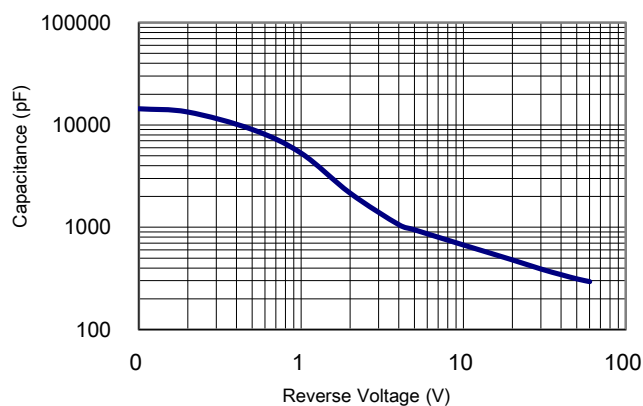
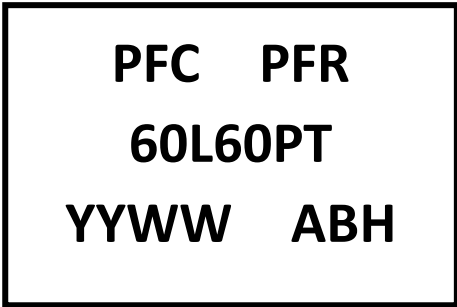


Figure 5: Typical Junction Capacitance



3. Marking information

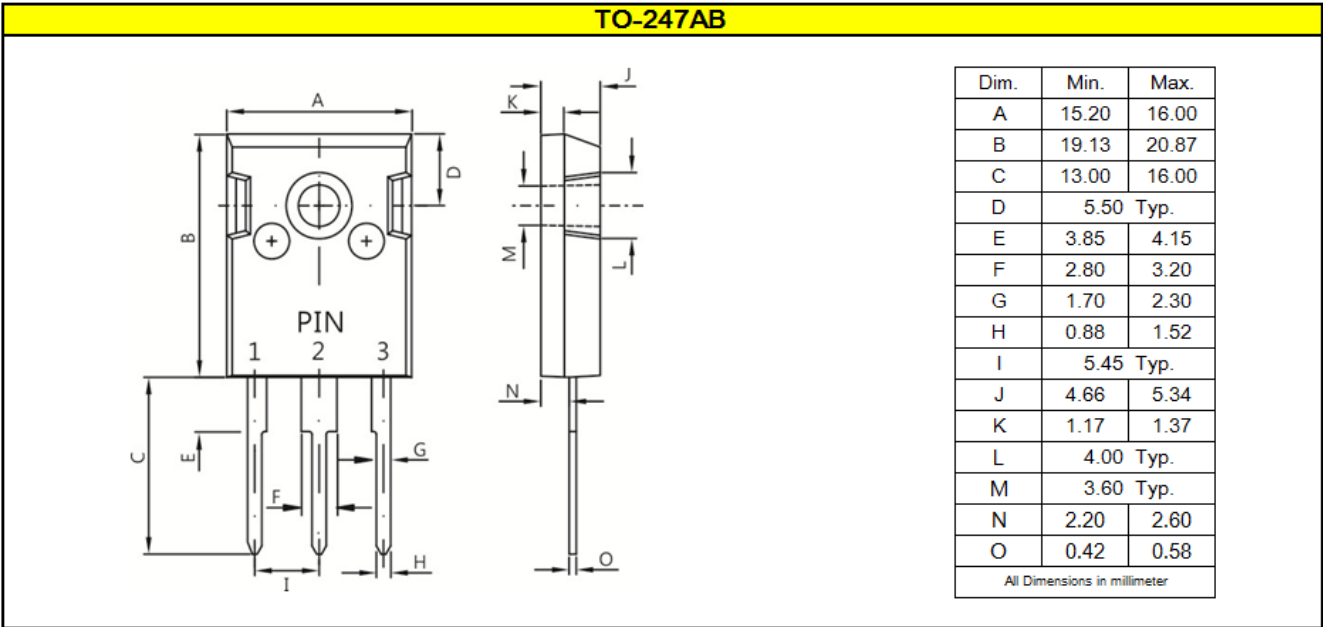
Top Marking Rule

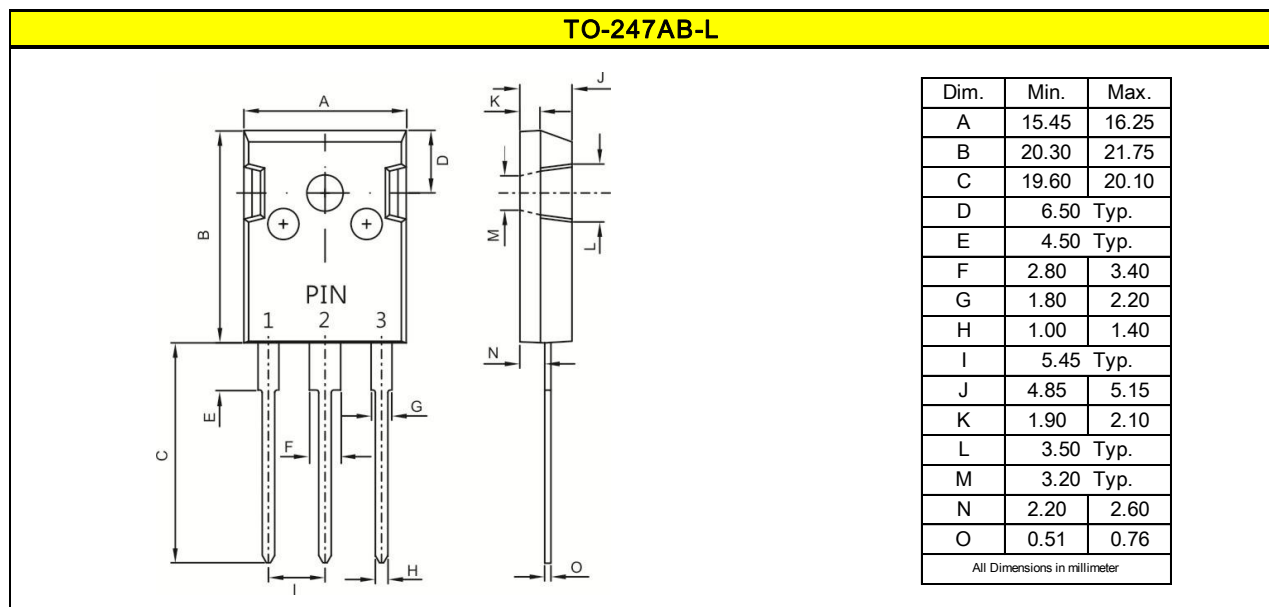


PFR60L60PT = Product Type Marking Code
YYWW = Date Code
YY = Last two digits of year
WW = Week code
AB = Assembly code
H = Halogen Free (N/A = common molding compound)

4. Package information

Package Outline Dimensions millimeters





5. Ordering information

| Part Number | Package | Delivery mode |
|--------------|------------------------|------------------|
| PFR60L60PT | TO-247AB | 30 pieces / tube |
| PFR60L60PT-L | TO-247AB-L (Long Lead) | 30 pieces / tube |

Note: For Halogen Free molding compound, add "H" suffix to part number above.

Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.16 ounces (4.53grams) - TO-247AB
0.197 Ounces (5.6grams) – TO-247AB-L (long lead)
Mounting Torque : 10 in-lbs maximum.



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