



*PFC Device Corporation*

# **PFR6060PT** **PFR6060PT-L**

## **60A 60V MOS Schottky Rectifier**

### **Major ratings and characteristics**

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	$30 \times 2$	A
$V_{RRM}$	60	V
$V_F@ 30A, T_J=125^\circ C$	0.65	V, typ.
$T_J$ Operating Junction Temperature	-65 to +150	$^\circ C$

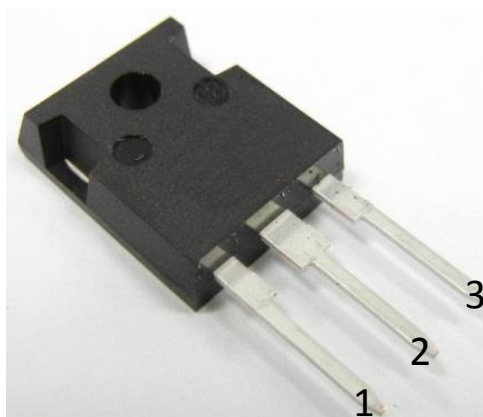
### **Features**

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

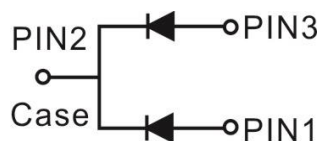
### **Typical Applications**

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

**PFR6060PT**



**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	$I_{FSM}$	280	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 )

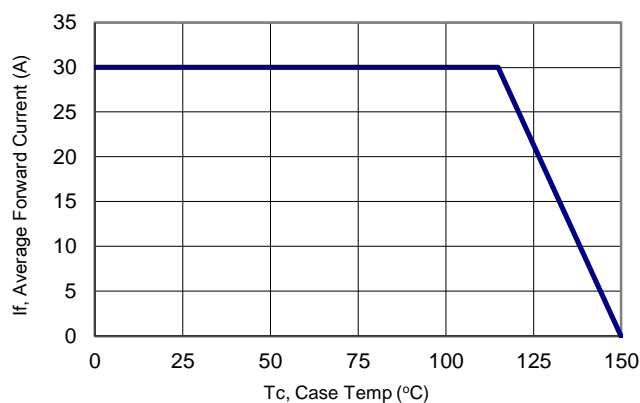
Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 30 A	TJ = 25 °C	VF*	-----	0.71	Volts
		TJ = 125 °C		0.65	0.69	
Instantaneous Reverse Current	At V <sub>RM</sub>	TJ = 25 °C	IR*	-----	500	uA
		TJ = 125 °C		-----	100	mA
* Pulse width < 300 uS, Duty cycle < 2%						



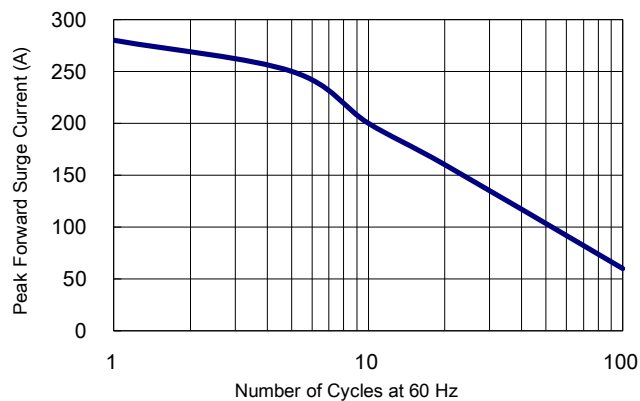
## 2. Characteristics Curves

### Ratings and Characteristics Curves

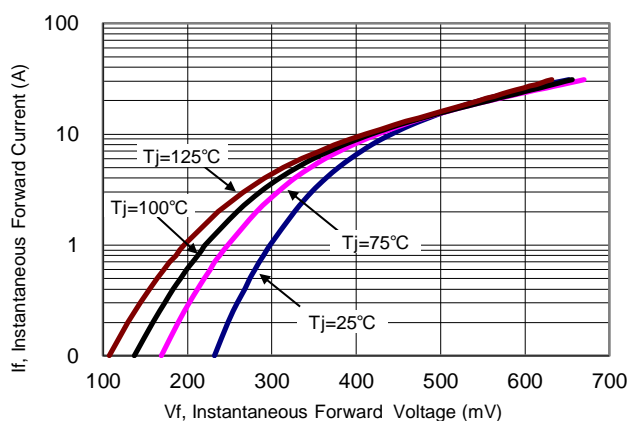
(  $T_A = 25^{\circ}\text{C}$  unless otherwise specified )



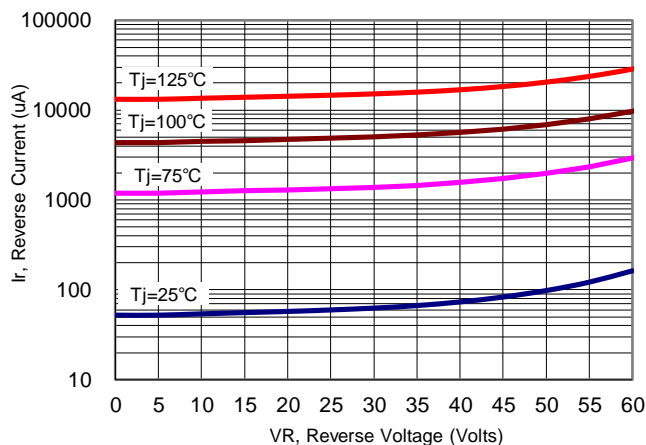
**Figure 1: Current Derating, Case**



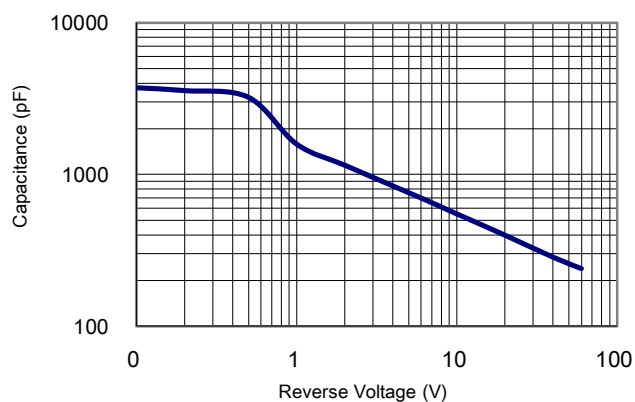
**Figure 2: Maximum Repetitive Surge Current**



**Figure 3: Typical Forward Voltage**



**Figure 4: Typical Reverse Current**

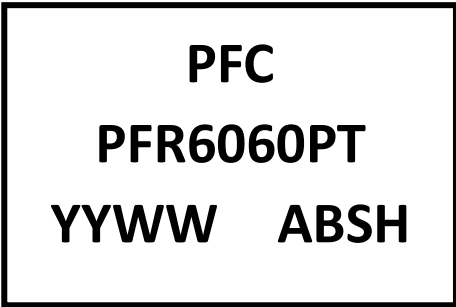


**Figure 5: Typical Junction Capacitance**



3. Marking information

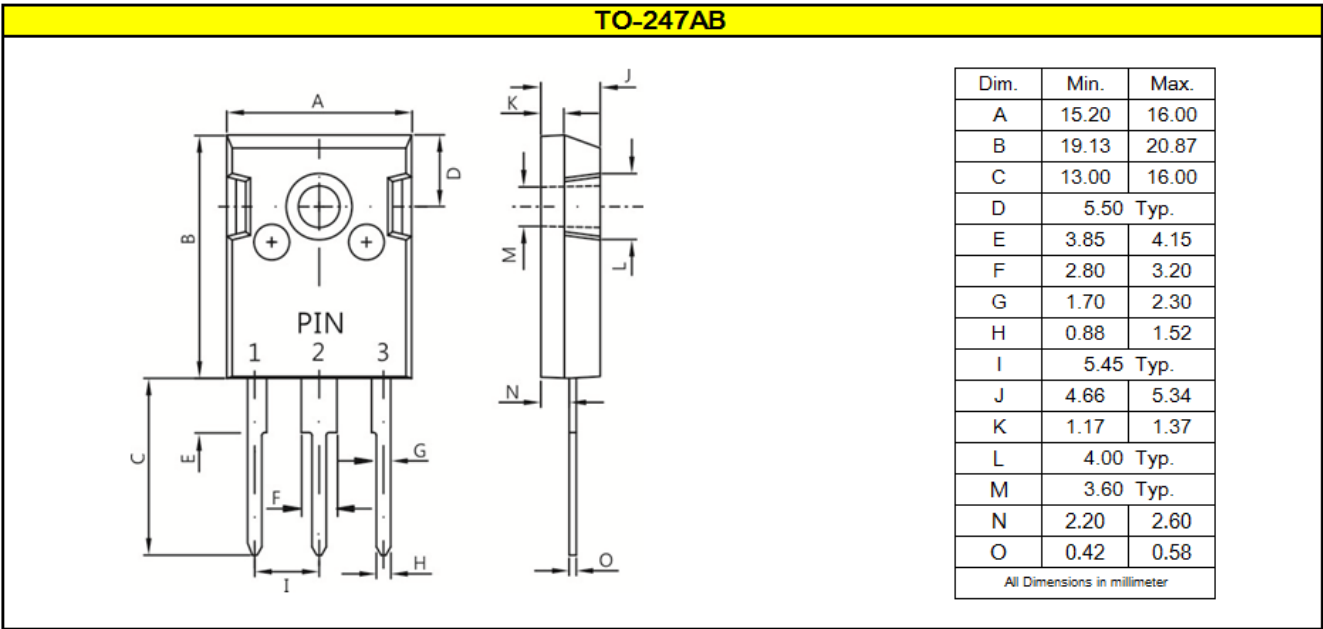
Top Marking Rule

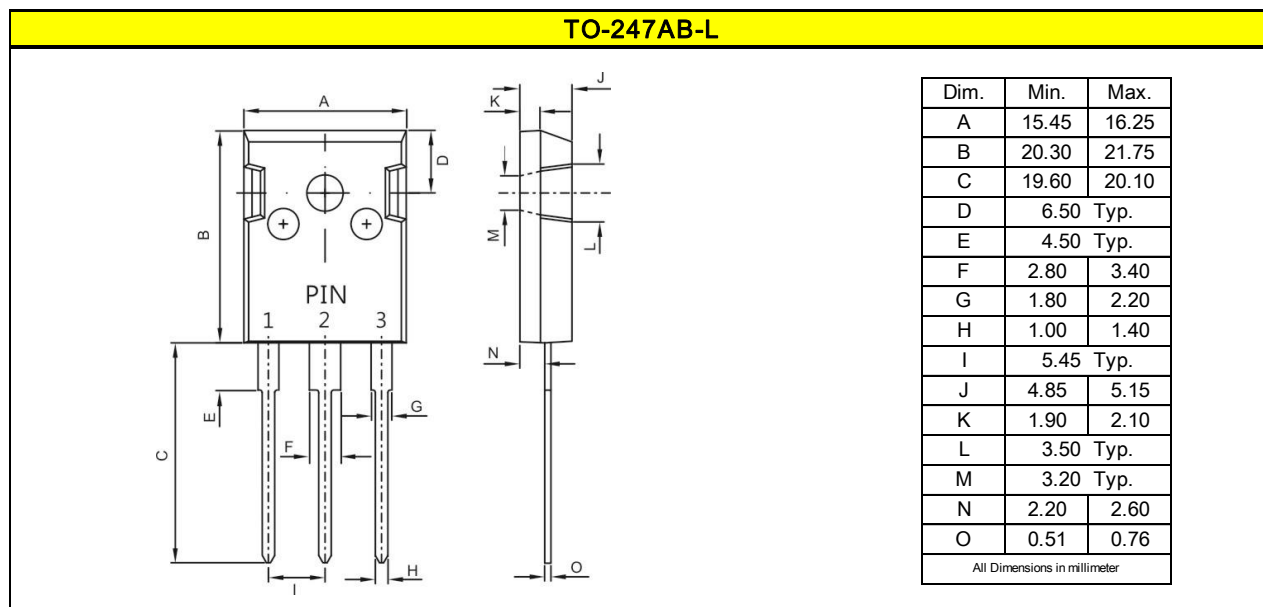


PFR6060PT = Product Type Marking Code  
YYWW = Date Code  
YY = Last two digits of year  
WW = Week code  
AB = Assembly code  
S = Series Number  
H = Halogen Free (N/A = common molding compound)

4. Package information

Package Outline Dimensions    millimeters





## 5. Ordering information

Part Number	Package	Delivery mode
PFR6060PT	TO-247AB	30 pieces / tube
PFR6060PT-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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