



# **PFR30V200PT** **PFR30V200PT-L**

*PFC Device Corporation*

## 30A 200V MOS Schottky Rectifier

### Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	$15 \times 2$	A
$V_{RRM}$	200	V
$V_F@ 15A, T_J=125^\circ C$	0.68	V, typ.
$T_J$ Operating Junction Temperature	-65 to +175	$^\circ C$

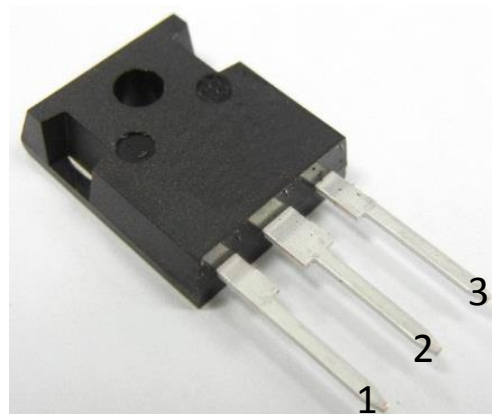
### Features

- Ultra Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 175 $^\circ C$  Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

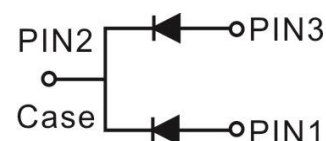
### Typical Applications

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

### PFR30V200PT



### TO-247AB



## 1. Characteristics

### Maximum Ratings Characteristics

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

Parameter	Symbol	Values	Units
DC Blocking Voltage	$V_{RM}$	200	Volts
Working Peak Reverse Voltage	$V_{RWM}$		
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Average Rectified Forward Current Per device	$I_o$	30	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)	$I_{RRM}$	0.5	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 +175	$^{\circ}\text{C}$
Storage Junction Temperature	$T_{STG}$	- 65 to +175	

### Electrical Characteristics - (per leg)

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 15 A	TJ = 25 °C	VF*	----	0.85	Volts
		TJ = 125 °C		0.68	0.71	
Instantaneous Reverse Current	At V <sub>RM</sub>	TJ = 25 °C	IR*	----	100	uA
		TJ = 125 °C		----	20	mA
* Pulse width < 300 uS, Duty cycle < 2%						



## 2. Characteristics Curves

### Ratings and Characteristics Curves

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

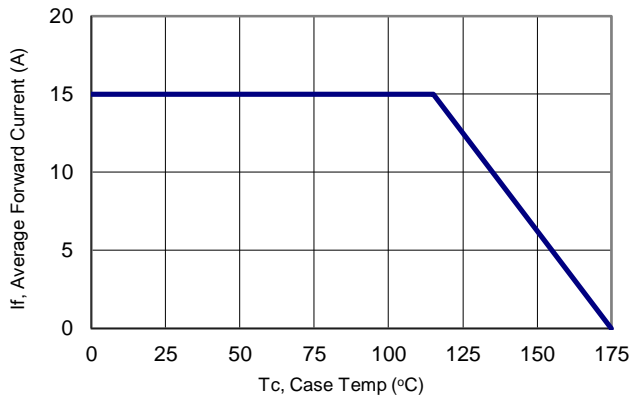


Figure 1: Current Derating, Case

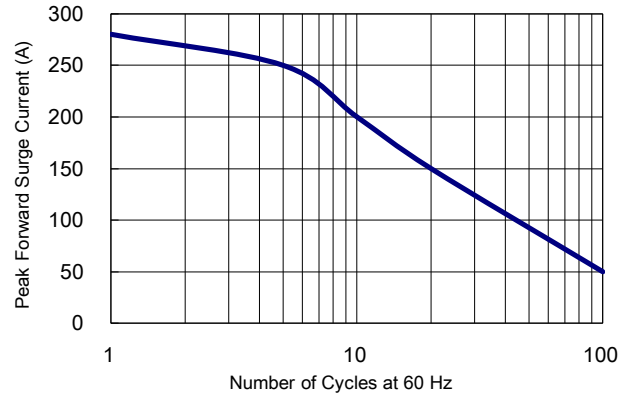


Figure 2: Maximum Repetitive Surge Current

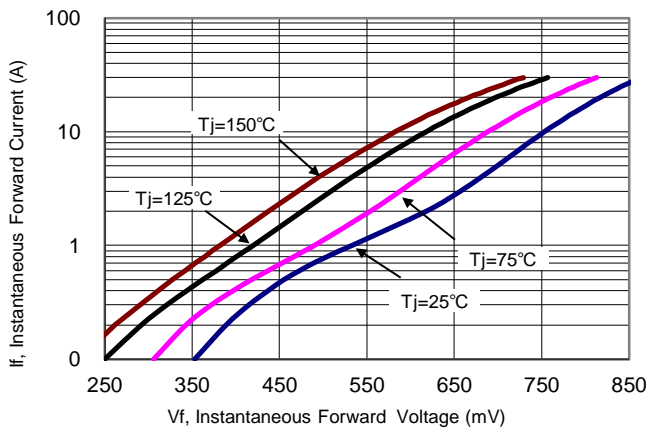


Figure 3: Typical Forward Voltage

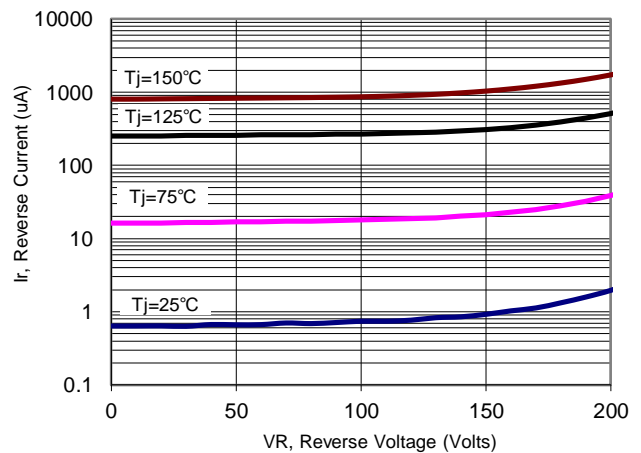


Figure 4: Typical Reverse Current

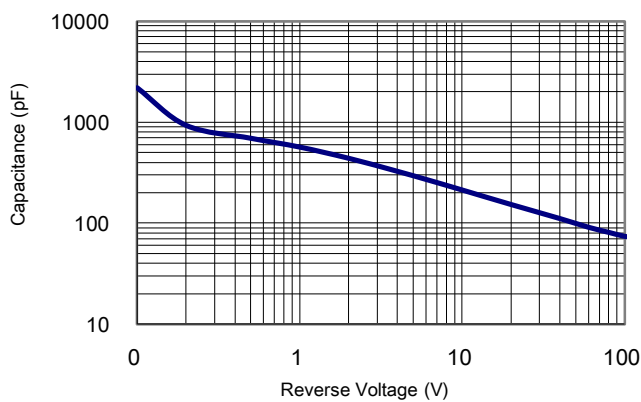
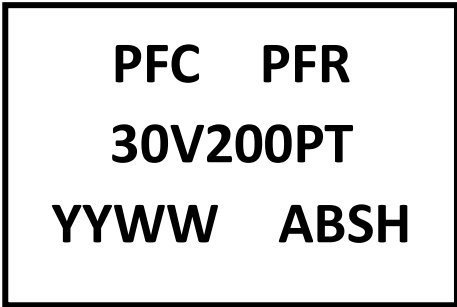


Figure 5: Typical Junction Capacitance



3. Marking information

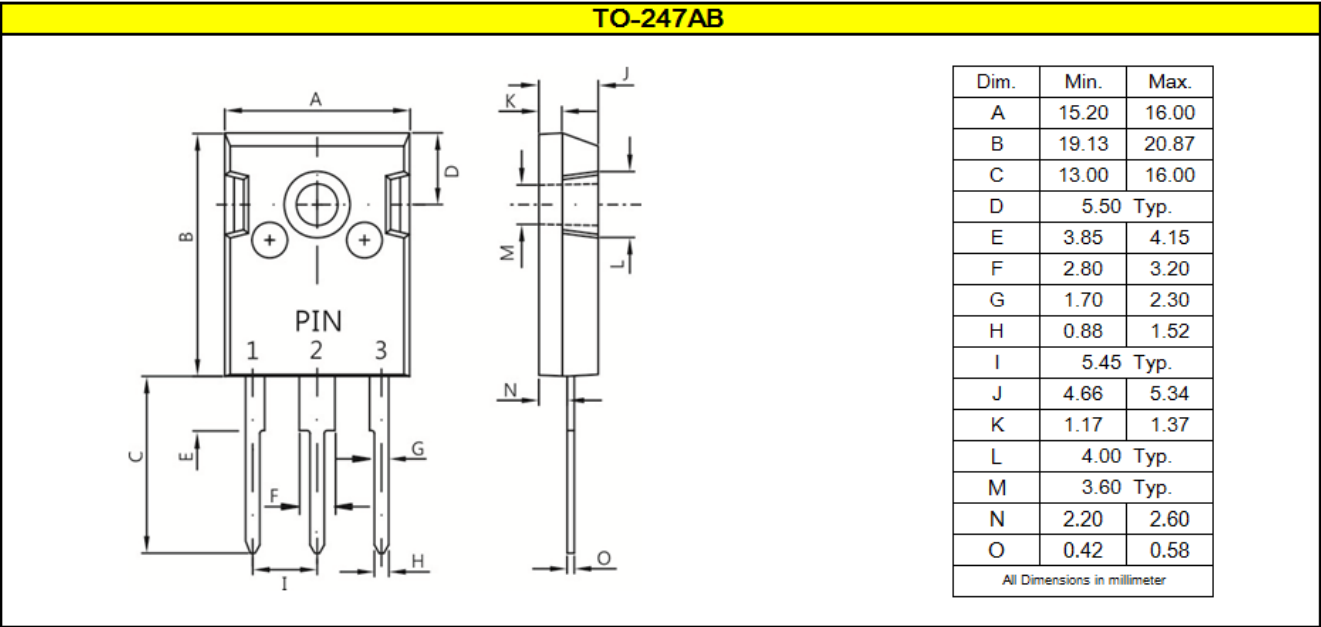
Top Marking Rule

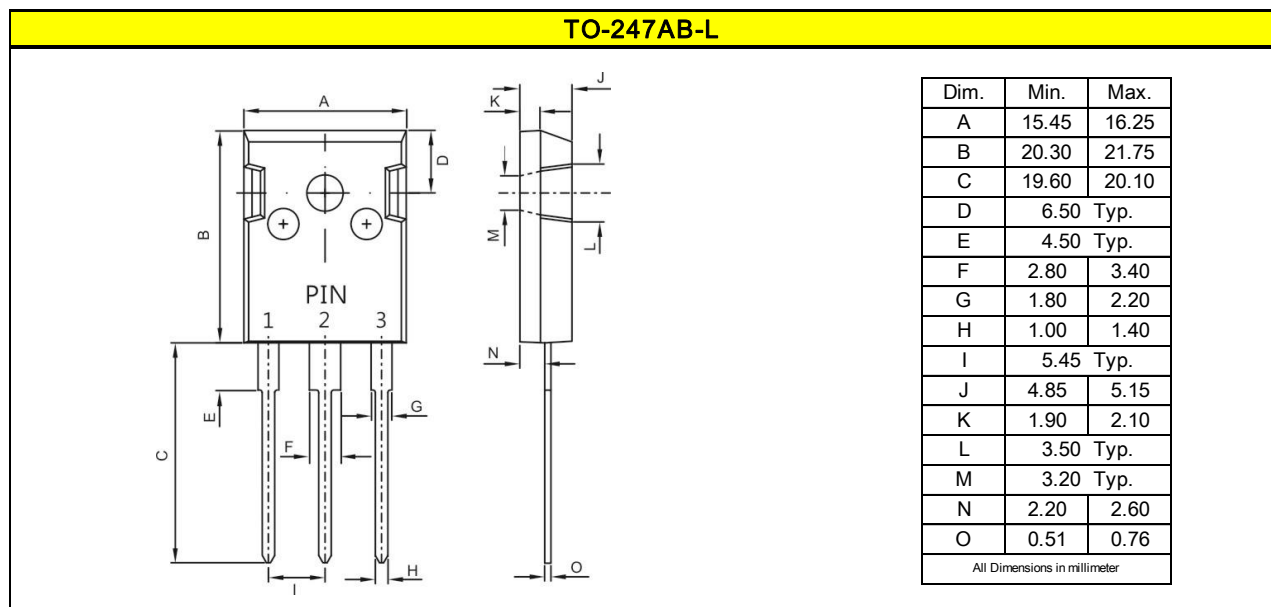


PFR30V200PT = Product Type Marking Code  
YYWW = Date Code  
YY = Last two digits of year  
WW = Week code  
AB = Assembly code  
S = Series Number  
H = Halogen Free (N/A = common molding compound)

4. Package information

Package Outline Dimensions    millimeters





## 5. Ordering information

Part Number	Package	Delivery mode
PFR30V200PT	TO-247AB	30 pieces / tube
PFR30V200PT-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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