



PFC Device Corporation

# **PFR60L60PT**

## **PFR60L60PT-L**

**60A 60V MOS Schottky Rectifier**

### **Major ratings and characteristics**

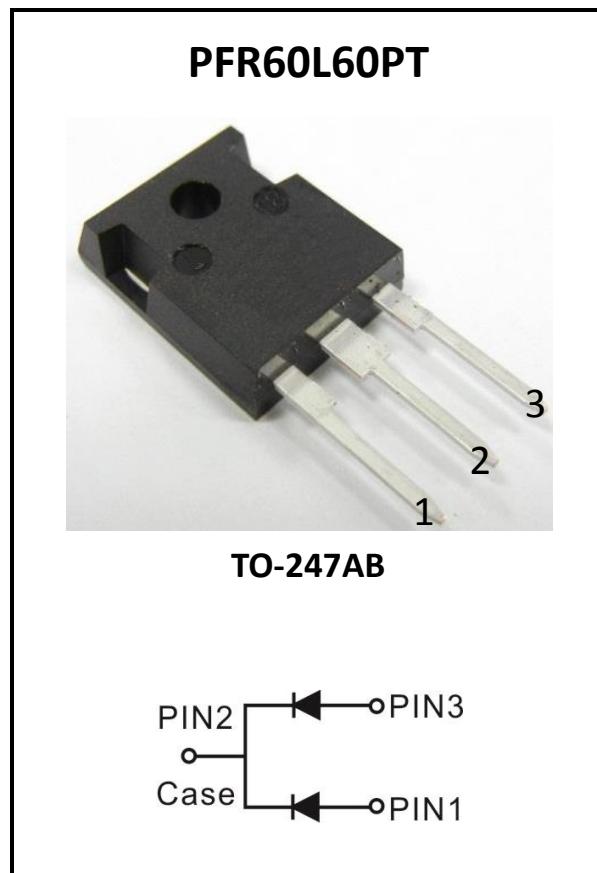
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	$30 \times 2$	A
$V_{RRM}$	60	V
$V_F$ @ 30A , $T_j=125^\circ\text{C}$	0.61	V, typ.
$T_j$ Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

### **Features**

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

### **Typical Applications**

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



# Characteristics

PFR60L6OPT

## 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	$\text{V/uS}$
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 )

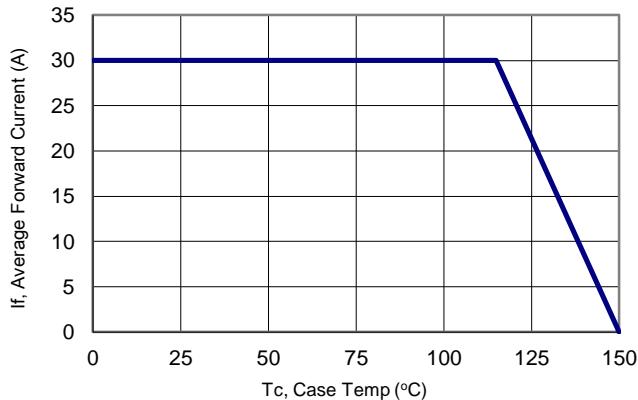
Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 30 A	$T_J = 25^\circ\text{C}$	VF*	----	0.65	Volts
		$T_J = 125^\circ\text{C}$		0.61	0.62	
Instantaneous Reverse Current	At $V_{RM}$	$T_J = 25^\circ\text{C}$	IR*	----	500	uA
		$T_J = 125^\circ\text{C}$		----	100	mA

\* Pulse width < 300 uS, Duty cycle < 2%

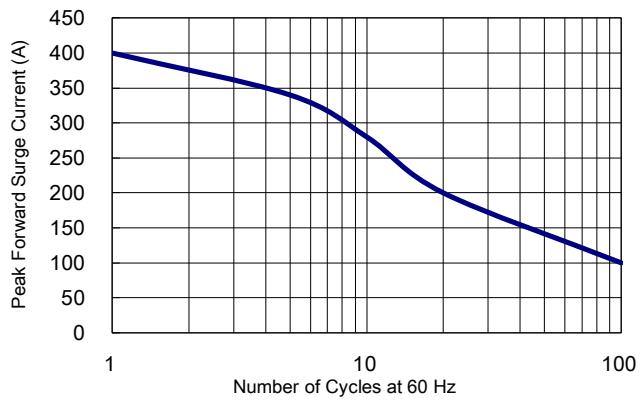
## 2. Characteristics Curves

### Ratings and Characteristics Curves

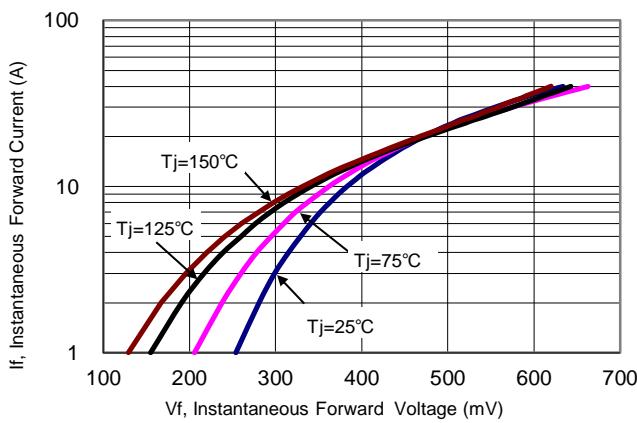
( TA = 25°C unless otherwise specified )



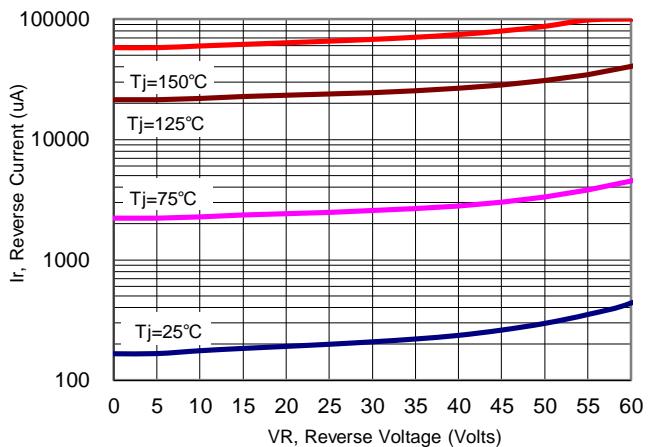
**Figure 1: Current Derating, Case**



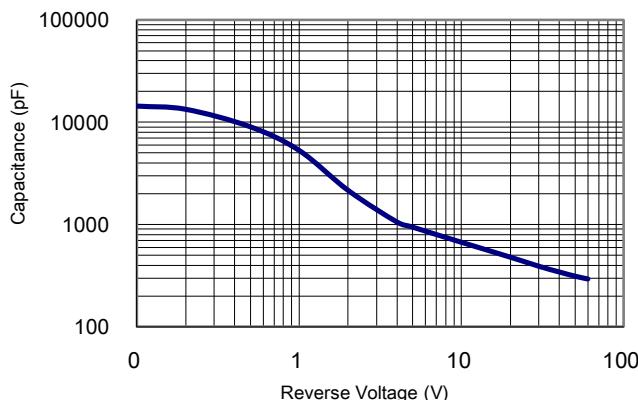
**Figure 2: Maximum Repetitive Surge Current**



**Figure 3: Typical Forward Voltage**



**Figure 4: Typical Reverse Current**



**Figure 5: Typical Junction Capacitance**