



PFR30L30CT
PFR30L30CTF
PFR30L30CTI
PFR30L30CTB

the following features are made possible in a single device:

Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	30	A
V_{RRM}	30	V
$V_F @ 15A, T_j = 125^\circ C$	0.37	V, typ
T_j (operating/storage)	-65 to 150	$^\circ C$





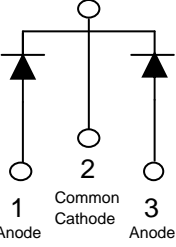
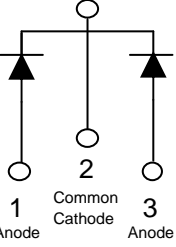
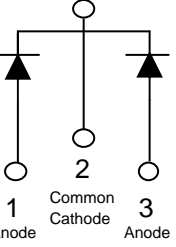
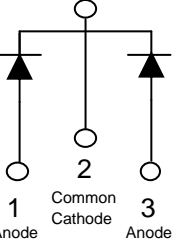
Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications

ELECTRICAL:

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

MECHANICAL:

- * Molded Plastic TO-220AB, TO-262, TO-263, and ITO-220 packages

Case Styles			
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TO-220AB	ITO-220AB	TO-262	TO-263



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Maximum Ratings and Electrical Characteristics

(at 25°C unless otherwise specified)

	SYMBOL			UNITS
DC Blocking Voltage	V_{RM}	30		Volts
Working Peak Reverse Voltage	V_{RWM}			
Peak Repetitive Reverse Voltage	V_{RRM}			
Average Rectified Forward Current (Rated V_R -20Khz Square Wave) - 50% duty cycle	I_O	30		Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	250		Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	2		Amps
Instantaneous Forward Voltage (per leg) $I_F = 15A; T_J = 25^\circ C$ $I_F = 15A; T_J = 125^\circ C$	V_F^*	Typ	Max	Volts
		---	0.47	
		---	0.39	
Maximum Instantaneous Reverse Current at Rated V_{RM} $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	Typ	Max	mA mA
		---	1.20	
		---	150	
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10,000		V/uS
Maximum Thermal Resistance JC (per leg) Package = TO-220AB, TO-262, & TO-263 Package = ITO-220	$R_{\theta_{JC}}$	2		°C/W
		4		
Isolation voltage (ITO-220 only)	V_{AC}	1500		V
Operating Junction Temperature	T_J	-65 to +150		°C
Storage Junction Temperature	T_{STG}	-65 to +150		°C

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



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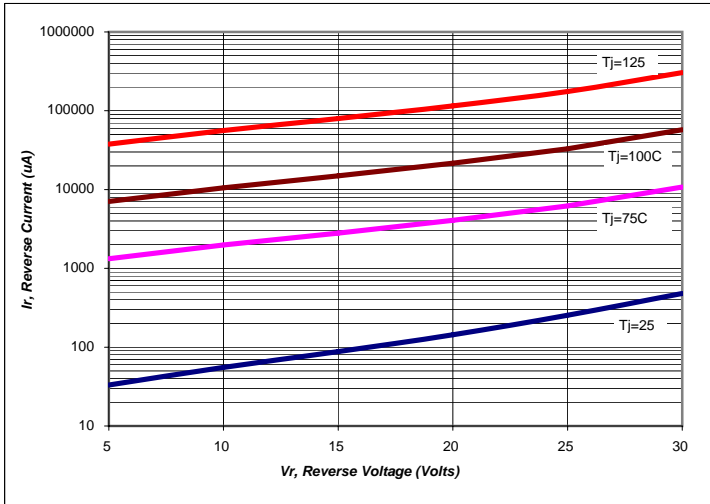


Figure 1: Typical Reverse Current

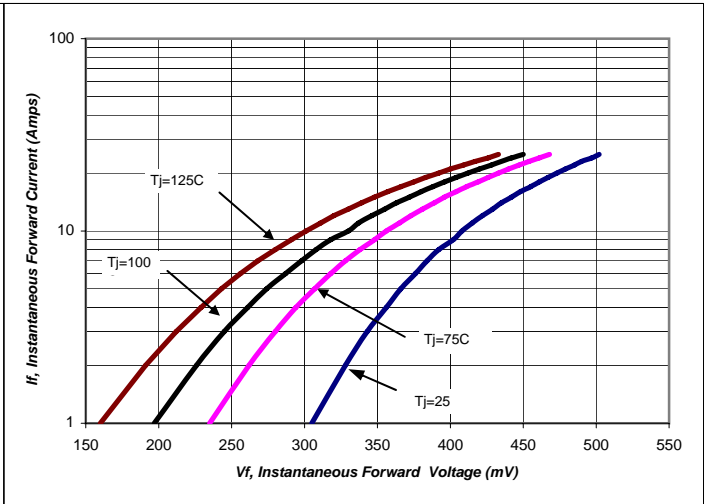


Figure 2: Typical Forward Voltage

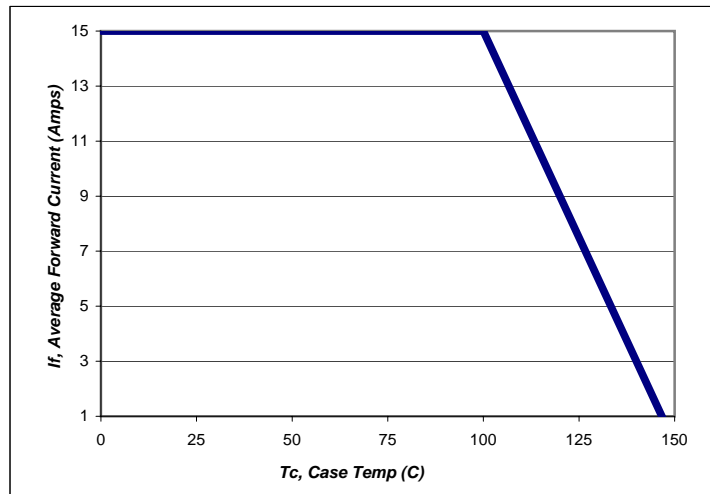


Figure 3: Current Derating, Case



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Ordering information

Part Number	Case	Packaging
PFR30L30	TO-220	50 pieces / tube
PFR30L30H	TO-220	50 pieces / tube
PFR30L30F	ITO-220	50 pieces / tube
PFR30L30FH	ITO-220	50 pieces / tube
PFR30L30I	TO-262	50 pieces / tube
PFR30L30IH	TO-262	50 pieces / tube
PFR30L30B	TO-263	50 pieces / tube
PFR30L30BH	TO-263	50 pieces / tube

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

Marking information

PFC PFR
30L30CT
YYWW ABH

PFR30L30 = 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)

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