



PFR20L45CT
PFR20L45CTF
PFR20L45CTI
PFR20L45CTB

the following features are made possible in a single device:

Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	20	A
V_{RRM}	45	V
$V_F@10A, T_j=125^\circ C$	0.46	V, typ
$T_j(\text{operating/storage})$	-65 to 150	$^\circ C$

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





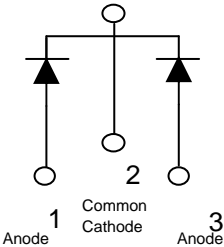
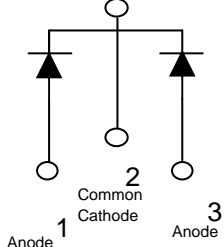
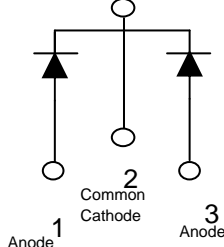
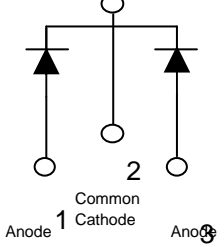
ELECTRICAL:

- * 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

PFR20L45CT	PFR20L45CTF	PFR20L45CTI	PFR20L45CTB
			
			
TO-220AB	ITO-220	TO-262	TO-263



PFR20L45CT
PFR20L45CTF
PFR20L45CTI
PFR20L45CTB

Maximum Ratings and Electrical Characteristics				
	SYMBOL			UNITS
DC Blocking Voltage Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	V_{RM} V_{RWM} V_{RRM}	45		Volts
Average Rectified Forward Current (Rated V_R -20Khz Square Wave) - 50% duty cycle	I_O	20		Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	200		Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	3		Amps
Instantaneous Forward Voltage (per leg) $I_F = 10A; T_J = 25^\circ C$ $I_F = 10A; T_J = 125^\circ C$	V_F^*	Typ --- ---	Max 0.50 0.47	Volts
Maximum Instantaneous Reverse Current at Rated V_{RM} $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	Typ --- ---	Max 0.5 100	mA mA
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 4		$^\circ C/W$
Operating and Storage Junction Temperature	T_J	-65 to +150		$^\circ C$

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



PFR20L45CT
PFR20L45CTF
PFR20L45CTI
PFR20L45CTB

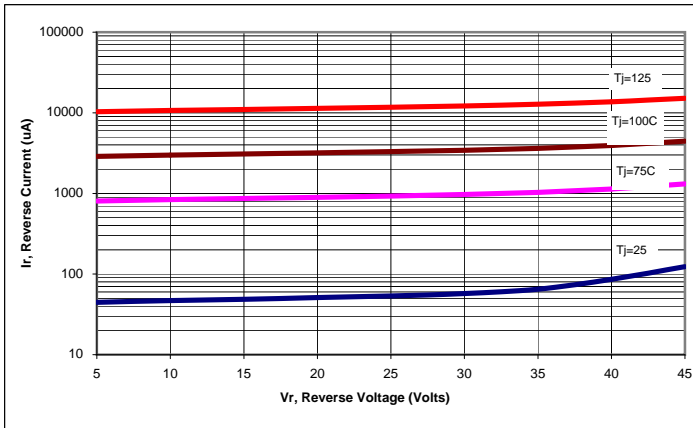


Figure 1: Typical Reverse Current

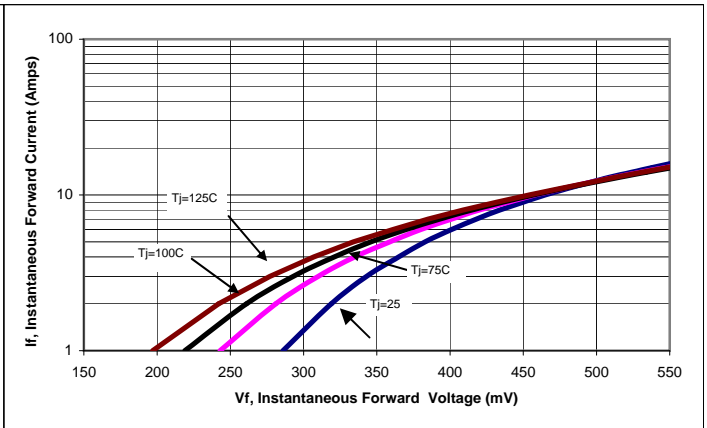


Figure 2: Typical Forward Voltage

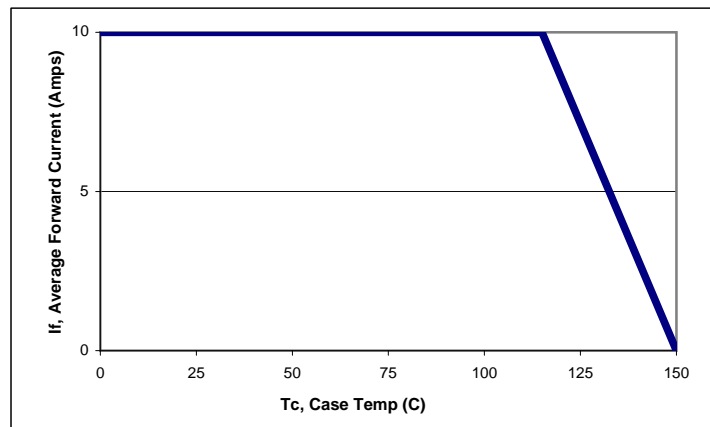


Figure 3: Current Derating, Case

PFC Device Corp reserves the right to make changes without further notice to any products herein. PFC Device Corp makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does PFC Device Corp assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in PFC Device Corp data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. PFC Device Corp does not convey any license under its patent rights nor the rights of others. PFC Device Corp products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the PFC Device Corp product could create a situation where personal injury or death may occur. Should Buyer purchase or use PFC Device Corp products for any such unintended unauthorized application, Buyer shall indemnify and hold PFC Device Corp and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that PFC Device Corp was negligent regarding the design or manufacture of the part.