

PFR20V300CT PFR20V300CTF

Major ratings and characteristics

Characteristics	Values	Units	
I _{F(AV)} Rectangular Waveform	10 × 2	А	
V_{RRM}	300	V	
V _F @ 10 A, Tj=125°C	0.71	V , typ.	
T _J Operating Junction Temperature	-65 to +175	°C	

TO-220AB ITO-220AB





Features

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

PIN2 PIN3 Case PIN1

Typical Applications

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

Mechanical

- * Molded Plastic Low profile TO-220AB / ITO-220AB
- * Mounting Torque: 10 in-lbs maximum.

Maximum Ratings Characteristics (T_A = 25°C unless otherwise specified)

Parameter	Symbol		Units	
DC Blocking Voltage	V_{RM}			
Working Peak Reverse Voltage	V_{RWM}	300	Volts	
Peak Repetitive Reverse Voltage	V_{RRM}			
Average Rectified Forward Current		00		
(Rated VR-20Khz Square Wave) - 50% duty cycle	l _o	20	Amps	
Peak Forward Surge Current - 1/2 60hz	I _{FSM}	180	Amps	
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	1	Amps	
Typical Thermal Resistance (per leg)				
Package = TO-220AB	$R\theta_{Jc}$	2	°C / W	
ITO-220AB		4		
Isolation voltage (ITO-220 only)	V _{AC}	1500	V	
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10000	V/uS	
Operating Junction Temperature	T _J - 65 to +175		°C	
Storage Junction Temperature	T _{STG}	- 65 to +175		

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Electrical Characteristics - (per leg)	(T _A = 25°C unless otherwise specified)
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Parameter	Test Conditions		Symbol	Тур.	Max.	Units
Instantaneous Forward Voltage	IF = 10 A	$T_J = 25^{\circ}C$	$V_F^{^*}$		0.89	Volts
		T _J = 125°C		0.71	0.74	
Instantaneous Reverse Current At	At V _{DM}	$T_J = 25^{\circ}C$	IR		200	uA
		T _J = 125°C	ir		30	mA

^{*} Pulse width < 300 uS, Duty cycle < 2%

Patings and Characteristics Curves (T_A = 25°C unless otherwise specified)

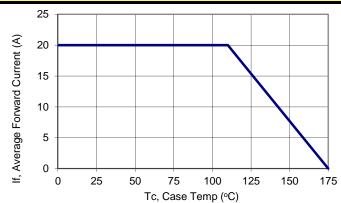


Figure 1: Current Derating, Case

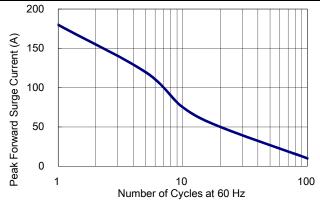


Figure 2: Maximum Repetitive Surge Current

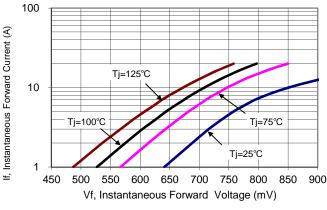


Figure 3: Typical Forward Voltage

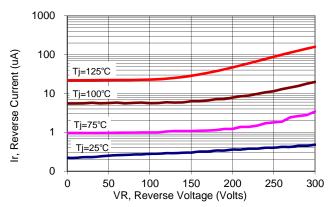


Figure 4: Typical Reverse Current

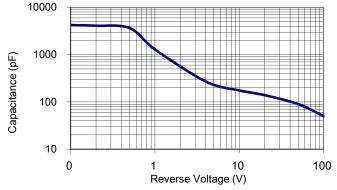
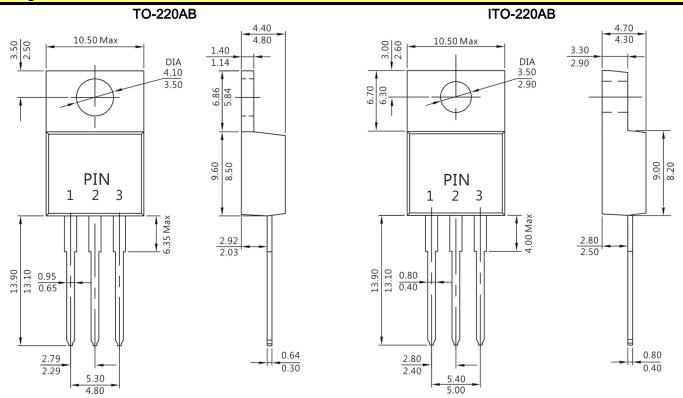


Figure 5: Typical Junction Capacitance

PFR20V300CT PFR20V300CTF

Package Outline Dimensions millimeters



Ordering information

Part Number	Package	Delivery mode
PFR20V300CT	TO-220AB	50 pieces / tube
PFR20V300CTF	ITO-220AB	50 pieces / tube

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

Marking information

PFC PFR 20V300CT YYWW ABH PFR20V300CT = 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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