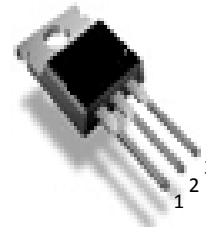




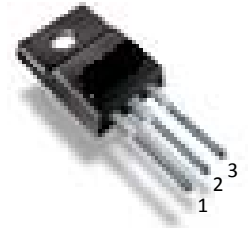
Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	15 × 2	A
V_{RRM}	45	V
$V_F@$ 15 A, $T_J=125^{\circ}C$	0.45	V , typ.
T_J Operating Junction Temperature	-65 to +150	$^{\circ}C$

TO-220AB

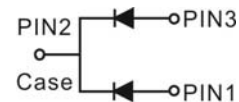


ITO-220AB



Features

- * Low Forward Voltage Drop
- * Reliable High Temperature Operation
- * Softest, fast switching capability
- * 150 $^{\circ}C$ 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

Mechanical

- * Molded Plastic Low profile TO-220AB / ITO-220AB
- * Device Weight : 0.07 ounces (1.96grams) - TO-220AB
0.06 ounces (1.74grams) - ITO-220AB
- * Mounting Torque : 10 in-lbs maximum.

Maximum Ratings Characteristics ($T_A = 25^{\circ}C$ unless otherwise specified)

Parameter	Symbol		Units
DC Blocking Voltage	V_{RM}		
Working Peak Reverse Voltage	V_{RWM}	45	Volts
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current (Rated VR-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
Typical Thermal Resistance (per leg)	$R\theta_{Jc}$		$^{\circ}C / W$
Package = TO-220AB		2	
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 +150	$^{\circ}C$
Storage Junction Temperature	T_{STG}	- 65 to +150	



Electrical Characteristics - (per leg) (T_A = 25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 15 A	T _J = 25°C	----	0.52	Volts
		T _J = 125°C	0.45	0.48	
Instantaneous Reverse Current	At V _{RM}	T _J = 25°C	----	500	uA
		T _J = 125°C	----	100	mA

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

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

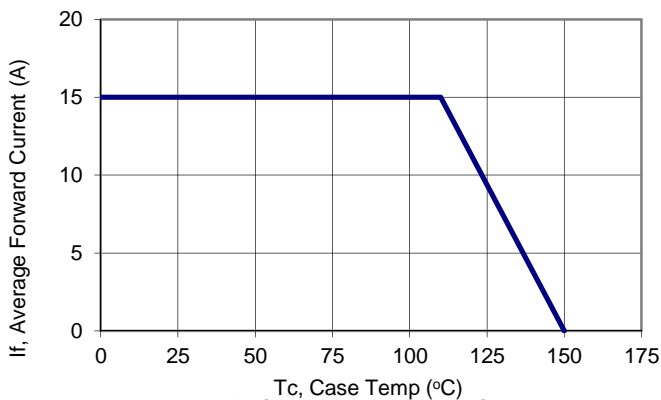


Figure 1: Current Derating, Case

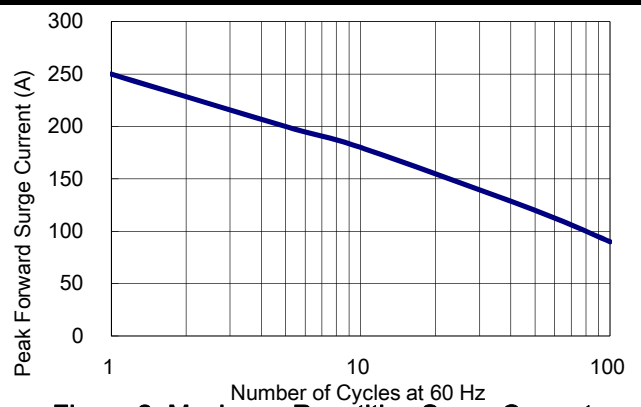


Figure 2: Maximum Repetitive Surge Current

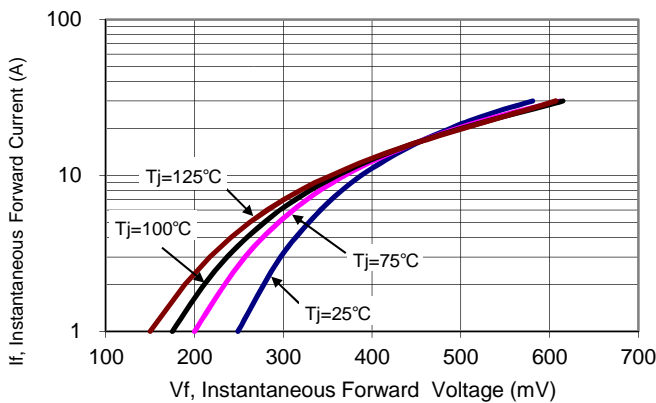


Figure 3: Typical Forward Voltage

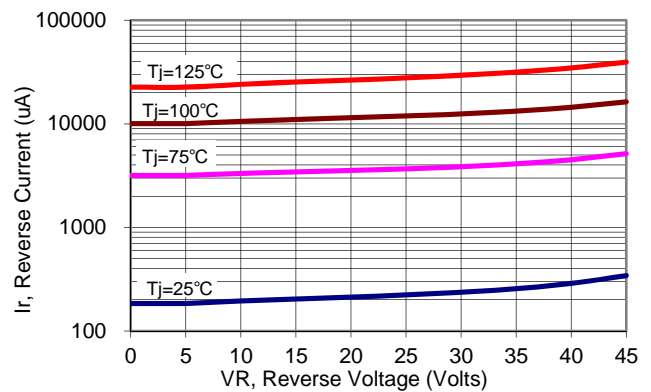


Figure 4: Typical Reverse Current

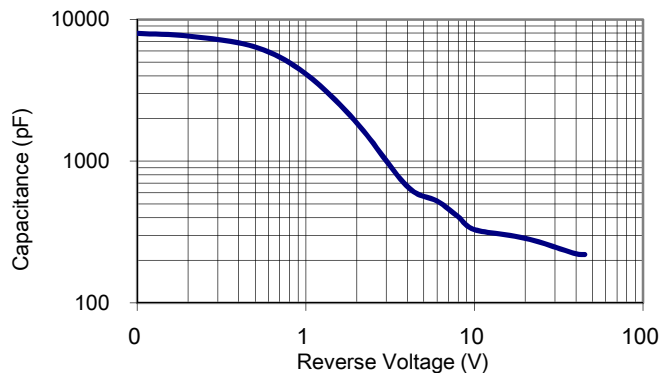
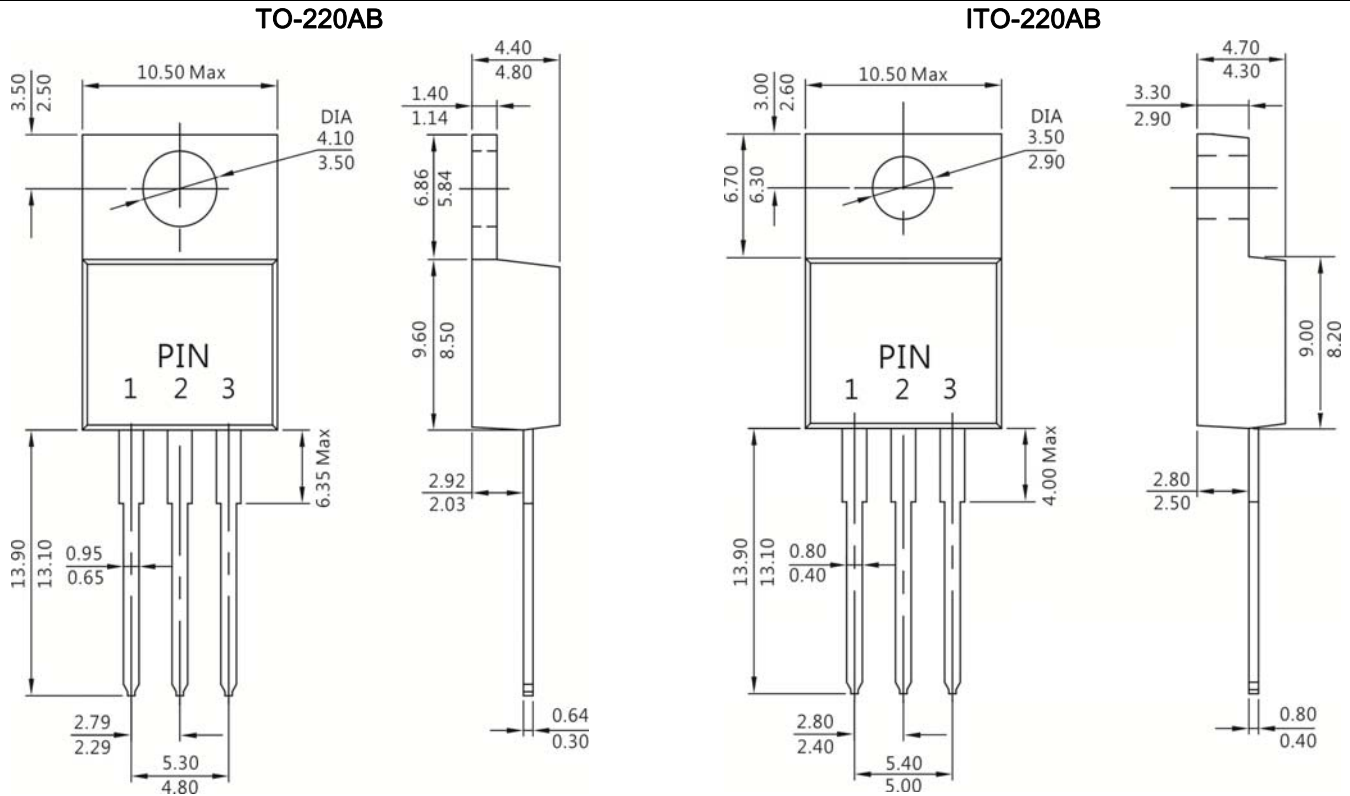


Figure 5: Typical Junction Capacitance



Package Outline Dimensions millimeters



Ordering information

Part Number	Package	Delivery mode
PFR30L45CT	TO-220AB	50 pieces / tube
PFR30L45CTF	ITO-220AB	50 pieces / tube

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

Marking information

PFC	PFR
30L45CT	
YYWW	ABH

PFR30L45CT = 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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