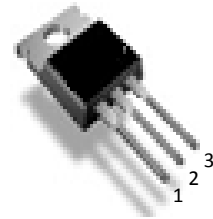




Major ratings and characteristics

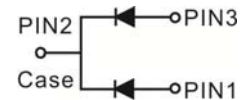
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	20 × 2	A
V_{RRM}	60	V
$V_F@ 20\text{ A, }T_j=125^\circ\text{C}$	0.51	V, typ.
T_j (operating/storage)	-65 to 150	°C

TO-220AB



Features

- * Ultra-Low Forward Voltage Drop
- * Reliable High Temperature Operation
- * Softest, fast switching capability
- * 150°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
- * Device Weight : 0.07 ounces (1.96grams)
- * Mounting Torque : 10 in-lbs maximum.

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

Parameter	Symbol	Units
DC Blocking Voltage	V_{RM}	
Working Peak Reverse Voltage	V_{RWM}	60
Peak Repetitive Reverse Voltage	V_{RRM}	
Average Rectified Forward Current (Rated V_R -20Khz Square Wave) - 50% duty cycle	I_o	40
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	400
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	2
Typical Thermal Resistance (per leg) Package = TO-220AB	$R\theta_{Jc}$	2
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10000
Operating Junction Temperature	T_J	- 65 to +150
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 = 20 A	V_F^*	$T_J = 25^\circ\text{C}$	----	0.55	Volts
			$T_J = 125^\circ\text{C}$	0.51	0.53	
Instantaneous Reverse Current	At V_{RM}	IR	$T_J = 25^\circ\text{C}$	----	500	μA
			$T_J = 125^\circ\text{C}$	----	100	mA

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

Patings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise specified)

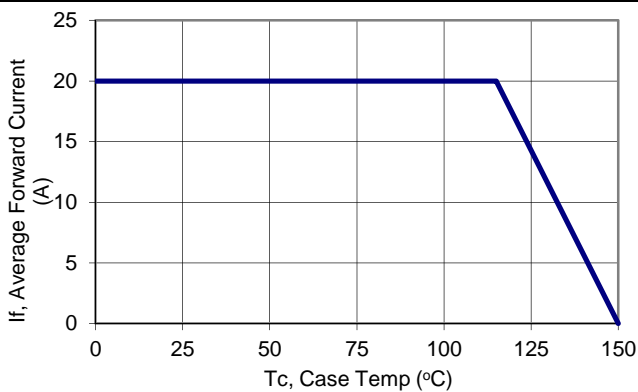


Figure 1: Current Derating, Case

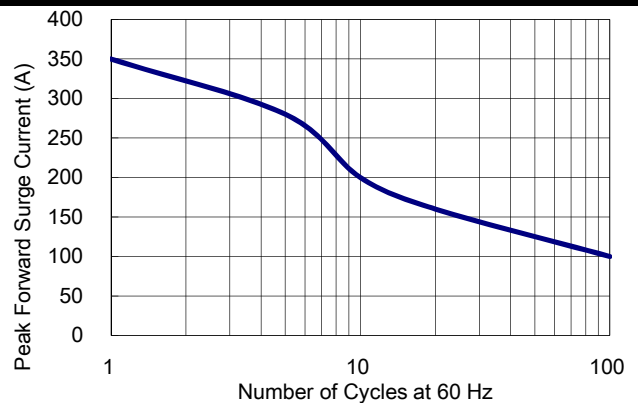


Figure 2: Maximum Repetitive Surge Current

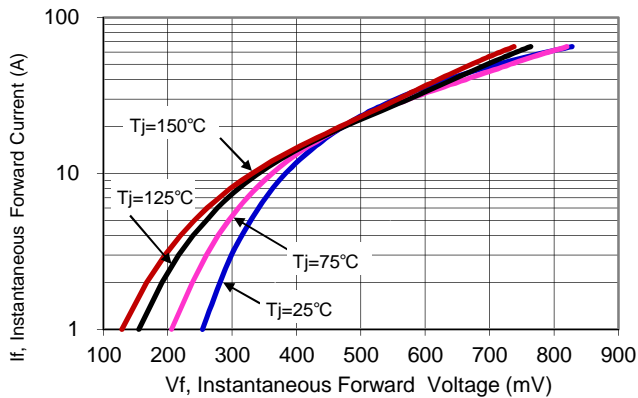


Figure 3: Typical Forward Voltage

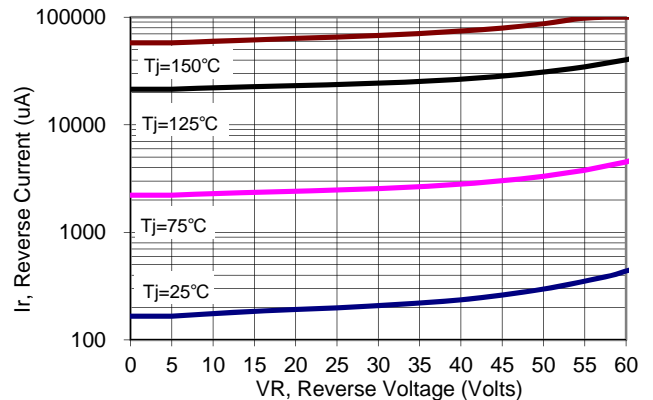


Figure 4: Typical Reverse Current

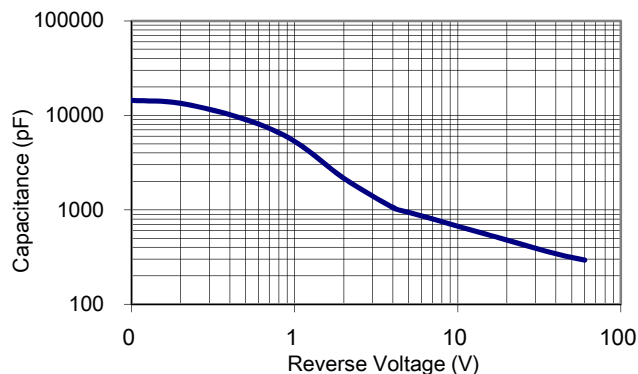
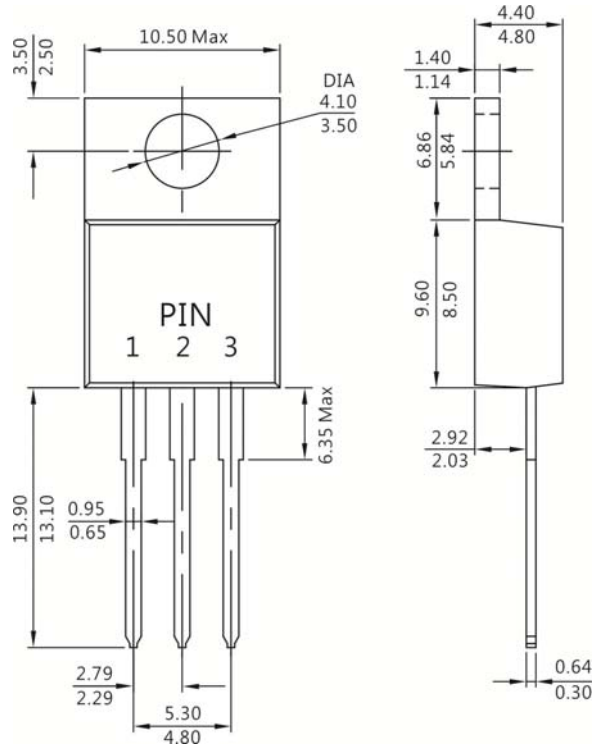


Figure 5: Typical Junction Capacitance



Package Outline Dimensions millimeters

TO-220AB



Ordering information

Part Number	Package	Delivery mode
PFR40V60CT	TO-220AB	50 pieces / tube

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

Marking information

PFC	PFR
40V60CT	
YYWW	ABH

PFR40V60CT = 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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