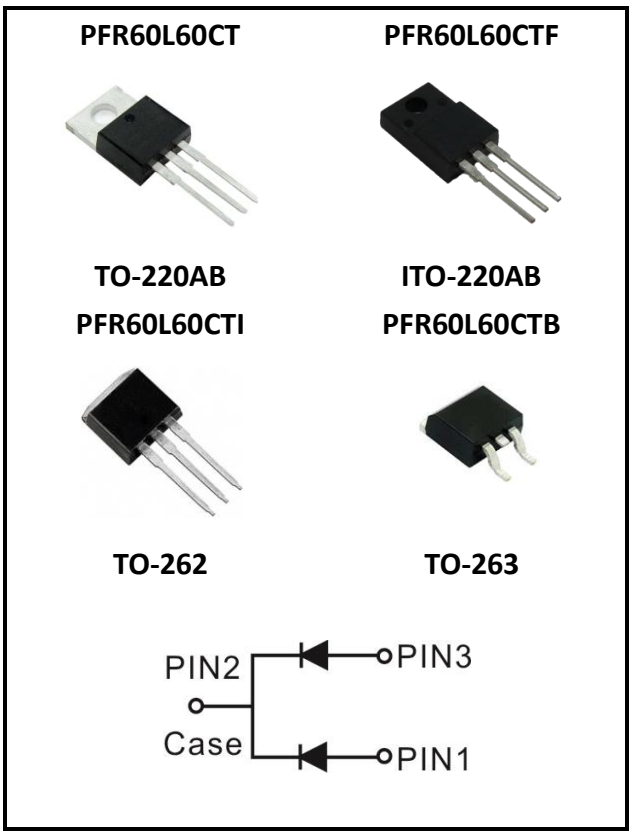
PFC Device Corporation

PFR60L60CT
PFR60L60CTF
PFR60L60CTI
PFR60L60CTB

60A 60V MOS Schottky Rectifier

Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	30 × 2	A
V_{RRM}	60	V
V_F@ 30A , Tj=125 °C	0.61	V, typ.
T_J Operating Junction Temperature	-65 to +150	°C



Features

- 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 low forward voltage drop to maximize efficiency in Power Supply applications

1. Characteristics

Maximum Ratings Characteristics (T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}	60	Volts
Working Peak Reverse Voltage	V_{RWM}		
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current Per device (Rated VR-20Khz Square Wave) - 50% duty cycle	I_o	60	Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	350	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	2	Amps
Typical Thermal Resistance (per leg) Package = TO-220AB Package =ITO-220AB Package =TO-262 Package =TO-263	$R\theta_{Jc}$	 2 4 2.5 3	°C / W
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	°C
Storage Junction Temperature	T_{STG}	- 65 to +150	

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 30 A	T_J = 25 °C	VF*	----	0.65	Volts
		T_J = 125 °C		0.61	0.62	
Instantaneous Reverse Current	At V_{RM}	T_J = 25 °C	IR*	----	500	uA
		T_J = 125 °C		----	100	mA
* Pulse width < 300 uS, Duty cycle < 2%						

2. Characteristics Curves

Ratings and Characteristics Curves (TA = 25℃ unless otherwise specified)

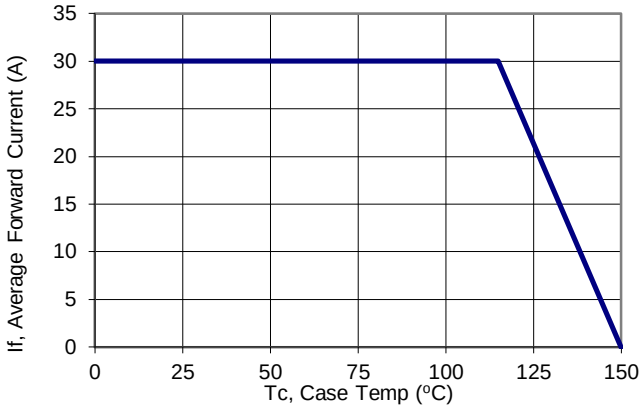


Figure 1: Current Derating, Case

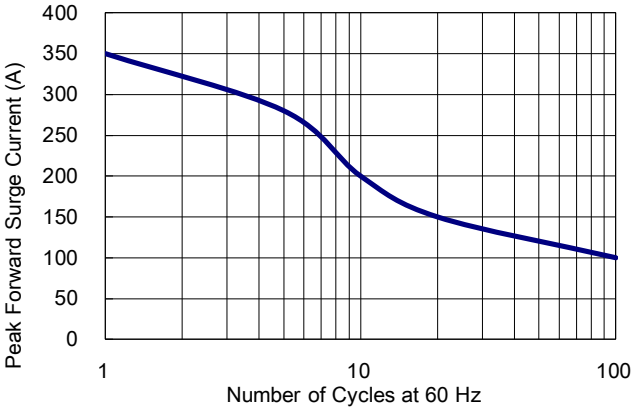


Figure 2: Maximum Repetitive Surge Current

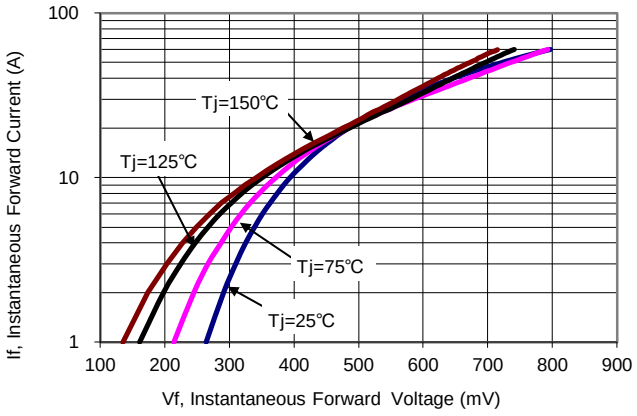


Figure 3: Typical Forward Voltage

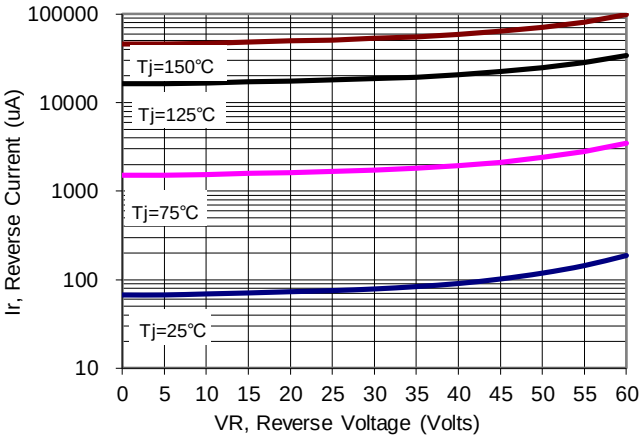


Figure 4: Typical Reverse Current

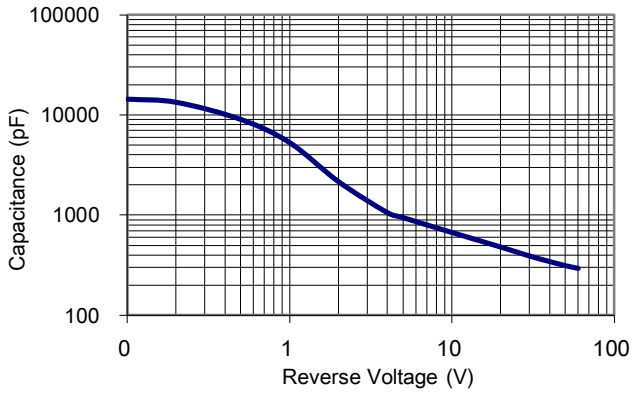
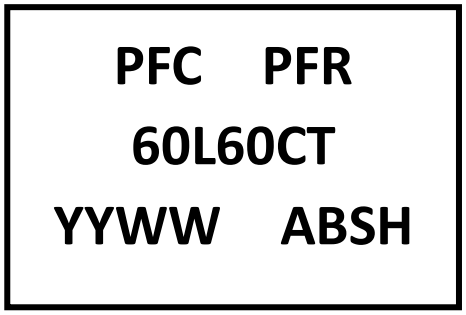


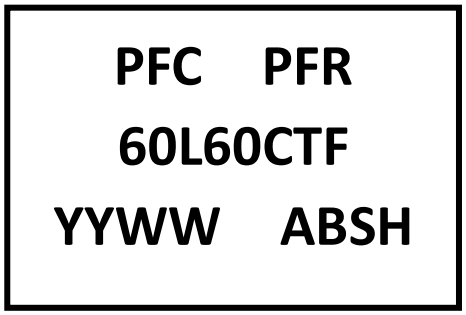
Figure 5: Typical Junction Capacitance

3. Marking information

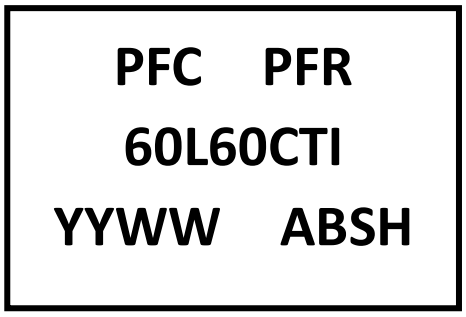
Top Marking Rule



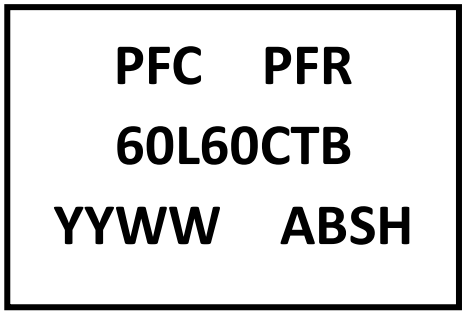
PFR60L60CT = Product Type Marking Code
YYWW = Date Code
YY = Last two digits of year
WW = Week code
AB = Assembly code
S = Series Number
H = Halogen Free (N/A = common molding compound)



PFR60L60CTF = Product Type Marking Code
YYWW = Date Code
YY = Last two digits of year
WW = Week code
AB = Assembly code
S = Series Number
H = Halogen Free (N/A = common molding compound)



PFR60L60CTI = Product Type Marking Code
YYWW = Date Code
YY = Last two digits of year
WW = Week code
AB = Assembly code
S = Series Number
H = Halogen Free (N/A = common molding compound)



PFR60L60CTB = Product Type Marking Code
YYWW = Date Code
YY = Last two digits of year
WW = Week code
AB = Assembly code
S = Series Number
H = Halogen Free (N/A = common molding compound)

5. Ordering information

Part Number	Package	Delivery mode
PFR60L60CT	TO-220AB	50 pieces / tube
PFR60L60CTF	ITO-220AB	50 pieces / tube
PFR60L60CTI	TO-262	50 pieces / tube
PFR60L60CTB	TO-263	800 pieces / 13'' diameter reel

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

Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.07 ounces (1.96grams) - TO-220AB
  0.06 ounces (1.74grams) - ITO-220AB
  0.05 ounces (1.45 grams) - TO-262
  0.04 ounces (1.16 grams) - TO-263

- Mounting Torque : Recommended 4~5 kg-cm.