PFC Device Corporation

PFR60L300PT

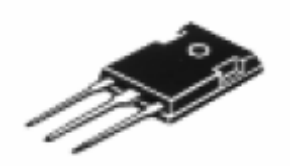
Major ratings and characteristics

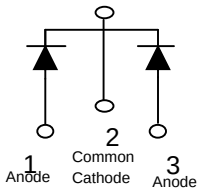
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	60	A
V_{RRM}	300	V
V_F@30A, Tj=125^{O}C	0.78	V, typ
Tj (operating/storage)	-65 to 175	^{O}C

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

MECHANICAL:
* Molded Plastic TO-247 package

ELECTRICAL:
* Low Forward Voltage Drop
* Reliable High Temperature Operation
* Softest, fast switching capability
* 175^{O}C Operating Junction Temperature
* Lead Free Finish, RoHS Compliant





Maximum Ratings and Electrical Characteristics
(at 25^{O}C unless otherwise specified)

	SYMBOL			UNITS
DC Blocking Voltage Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	V_{RM} V_{RWM} V_{RRM}	300		Volts
Average Rectified Forward Current (Rated V_R-20Khz Square Wave) - 50% duty cycle	I_O	60		Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	250		Amps
Instantaneous Forward Voltage (per leg) I_F = 30A; T_J = 25^{O}C I_F = 30A; T_J = 125^{O}C	V_{F*}	Typ 0.89 0.78	Max 0.96 0.80	Volts
Maximum Instantaneous Reverse Current at Rated V_{RM} T_J = 25^{O}C T_J = 125^{O}C	I_R	Typ 0.01 1.0	Max 0.1 10	mA
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10,000		V/uS
Maximum Thermal Resistance JC (per leg) Package = TO-247	$R\theta_{JC}$	2		^{O}C/W
Operating and Storage Junction Temperature	T_J	-65 to +175		^{O}C

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

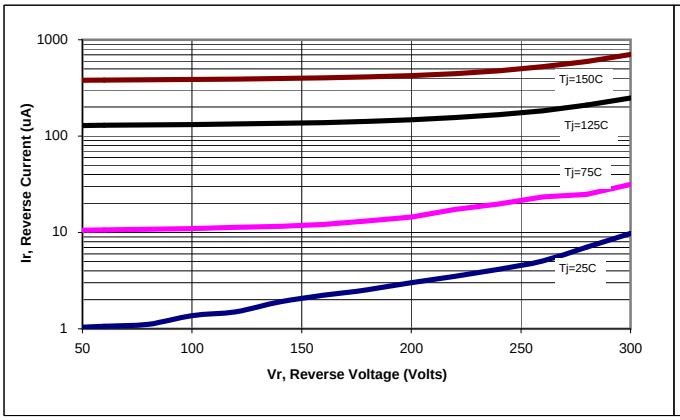


Figure 1: Typical Reverse Current

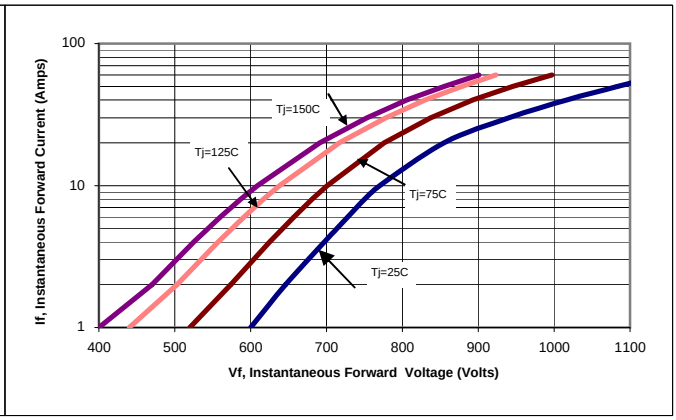


Figure 2: Typical Forward Voltage

Figure 3: Current Derating, Case (per leg)