



# **PTR30L100PT** **PTR30L100PT-L**

*PFC Device Corporation*

## 30A 100V HPTR<sup>®</sup> Schottky Rectifier

### Major ratings and characteristics

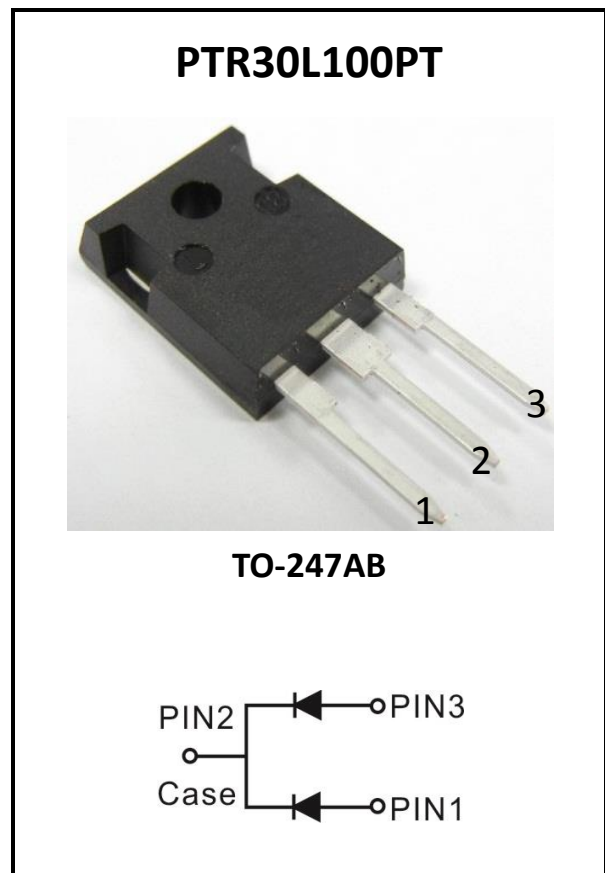
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	15 × 2	A
$V_{RRM}$	100	V
$V_F@ 15A, T_j=125^\circ C$	0.62	V, typ.
$T_j$ Operating Junction Temperature	-65 to +150	°C

### Features

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

Parameter	Symbol	Values	Units
DC Blocking Voltage	$V_{RM}$	100	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	$I_o$	30	Amps
Peak Forward Surge Current - 1/2 60hz	$I_{FSM}$	250	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	1	Amps
Typical Thermal Resistance (per leg)	$R\theta_{Jc}$	1.5	$^\circ\text{C} / \text{W}$
Maximum Rate of Voltage Change ( at Rated VR )	$dv/dt$	10000	$\text{V}/\mu\text{S}$
Operating Junction Temperature	$T_J$	- 65 to +150	$^\circ\text{C}$
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 = 5 A	$T_J = 25^\circ\text{C}$	VF*	0.49	-----	Volts
	IF = 15 A			0.67	0.78	
	IF = 5 A	$T_J = 125^\circ\text{C}$		0.43	-----	
	IF = 15 A			0.62	0.68	
Instantaneous Reverse Current	VR=70V	$T_J = 25^\circ\text{C}$	IR*	4.0	-----	$\mu\text{A}$
	VR=100V			8.0	200	$\mu\text{A}$
	VR=70V	$T_J = 125^\circ\text{C}$		4.5	-----	$\text{mA}$
	VR=100V			7.8	30	$\text{mA}$

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



2. Characteristics Curves

Ratings and Characteristics Curves

( TA = 25°C unless otherwise specified )

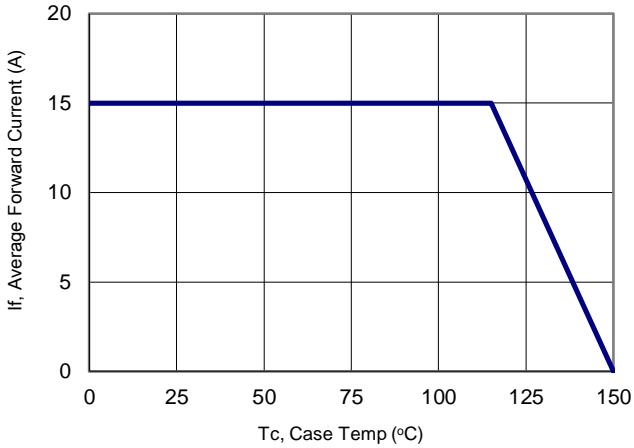


Figure 1: Current Derating, Case

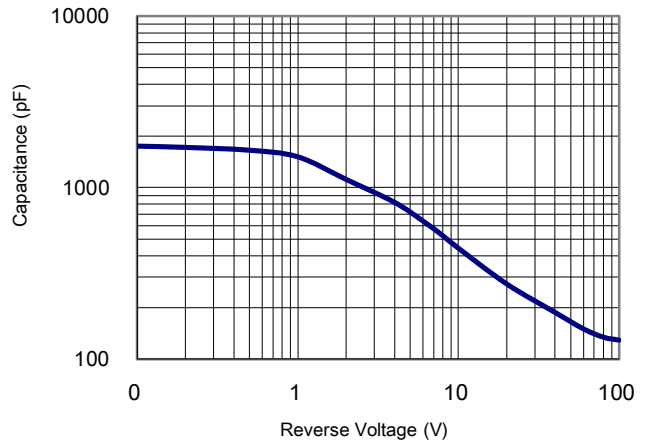


Figure 2: Typical Junction Capacitance

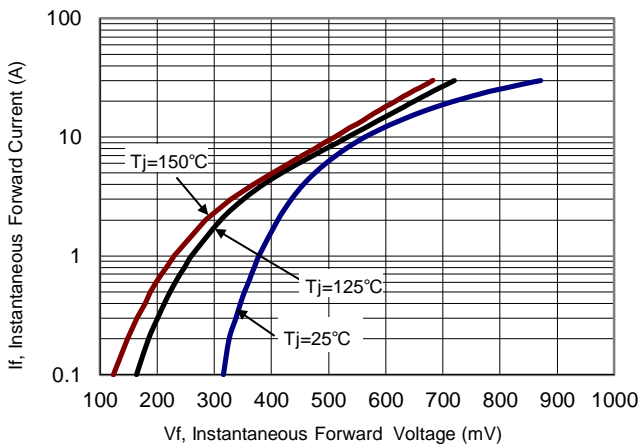


Figure 3: Typical Forward Voltage

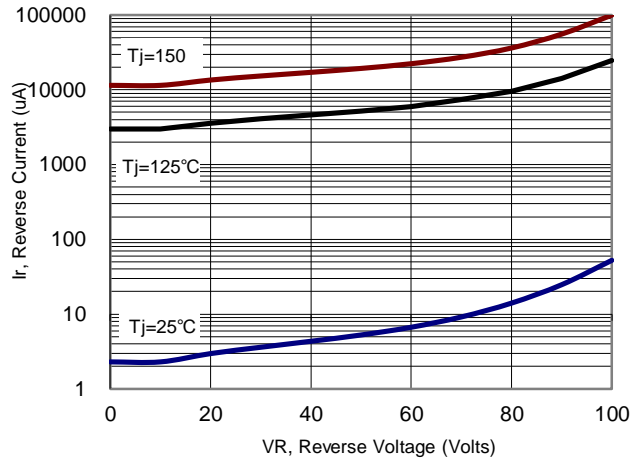
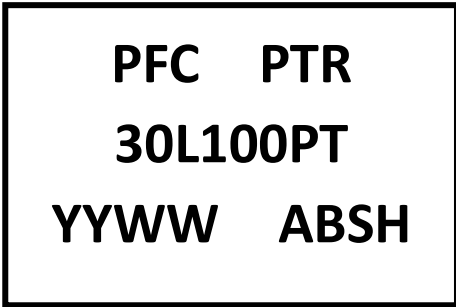


Figure 4: Typical Reverse Current



3. Marking information

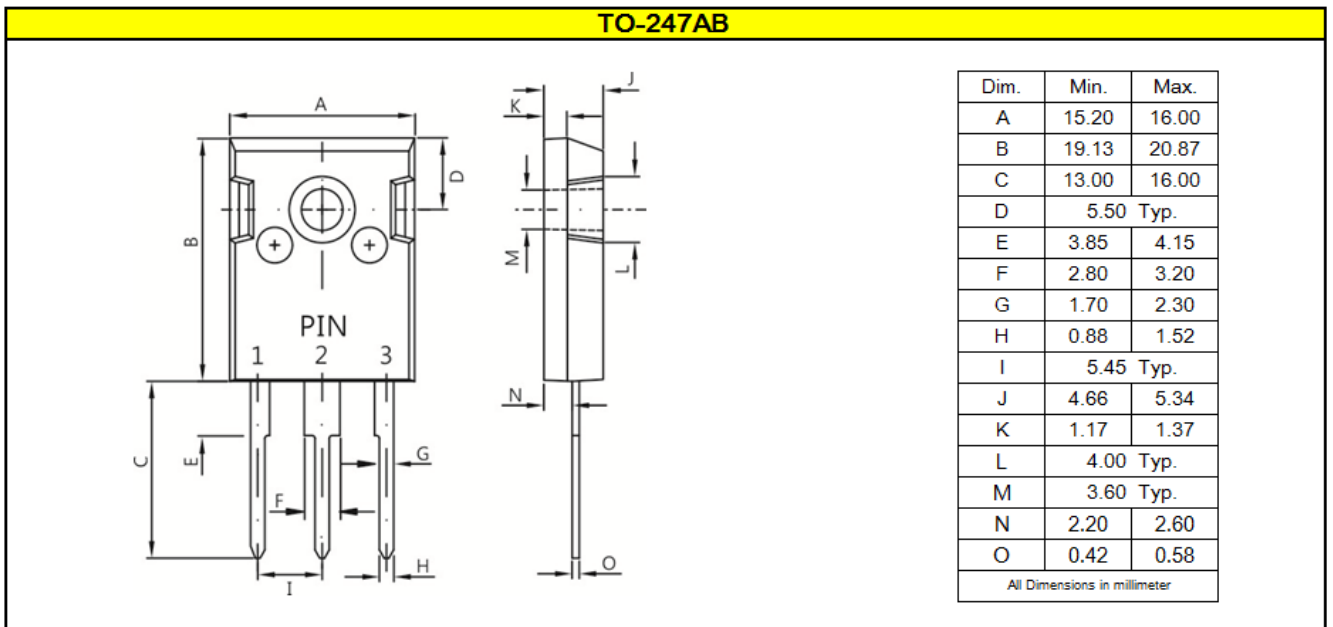
Top Marking Rule

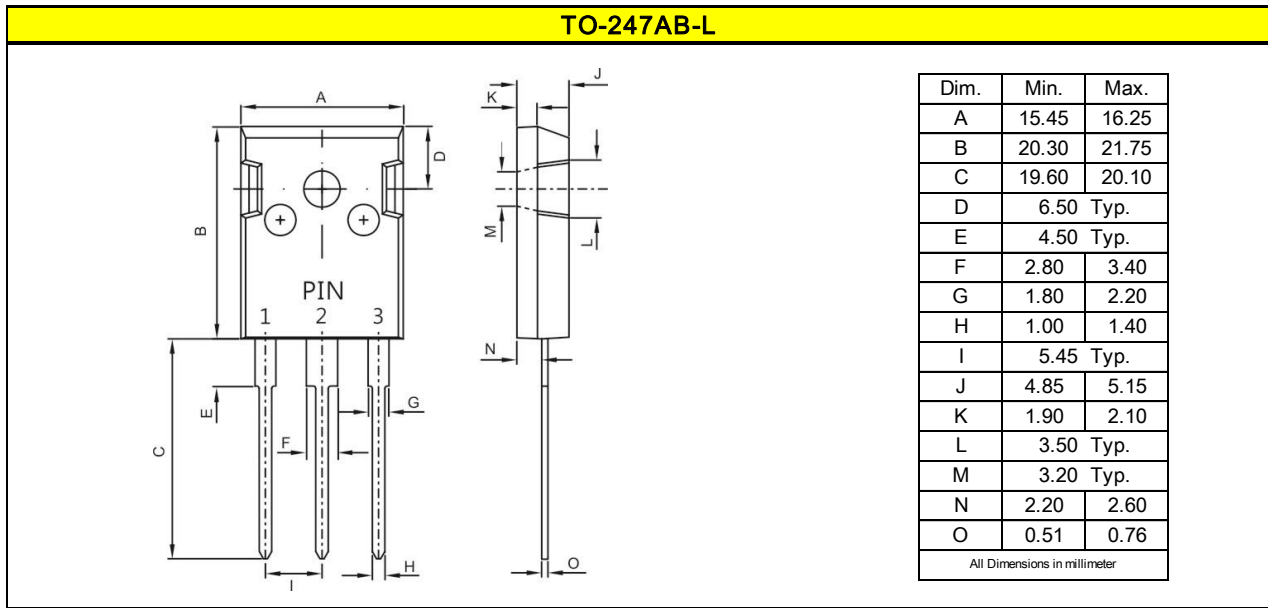


PTR30L100PT = Product Type Marking Code  
 YYWW = Date Code  
 YY = Last two digits of year  
 WW = Week code  
 AB = Assembly code  
 S = Series Number  
 H = Halogen Free (N/A = common molding compound)

4. Package information

Package Outline Dimensions millimeters





**5. Ordering information**

Part Number	Package	Delivery mode
PTR30L100PT	TO-247AB	30 pieces / tube
PTR30L100PT-L	TO-247AB-L(long lead)	30 pieces / tube

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

**Mechanical**

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.16 ounces (4.53grams) - TO-247AB  
0.197 Ounces (5.6grams) – TO-247AB-L (long lead )  
Mounting Torque : 10 in-lbs maximum.



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