

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	60	Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	320	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	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	$^\circ\text{C} / \text{W}$
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	- 40 to +150	$^\circ\text{C}$
Storage Junction Temperature	T_{STG}	- 40 to +150	

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

Parameter	Test Conditions	Symbol	Typ.	Max.	Units		
Breakdown Voltage	$I_R = 0.5\text{mA}$ $T_J = 25^\circ\text{C}$	V_B^*	100 (min.)	-----	V		
Instantaneous Forward Voltage	$T_J = 25^\circ\text{C}$	V_F^*	IF = 5 A	0.44	-----	Volts	
			IF = 10 A	0.50			
			IF = 15 A	0.56	0.61		
			IF = 20 A	0.61			
			IF = 30 A	0.73	0.77		
	$T_J = 125^\circ\text{C}$		IF = 5 A	0.35	-----		
			IF = 10 A	0.45			
			IF = 15 A	0.52	0.56		
			IF = 20 A	0.57			
			IF = 30 A	0.65	0.69		
Instantaneous Reverse Current	$T_J = 25^\circ\text{C}$	I_R^*	$V_R = 80\text{V}$	9.0	200	μA	
			$V_R = 100\text{V}$	17.0	300	μA	
	$T_J = 125^\circ\text{C}$		$V_R = 80\text{V}$	11.0	20	mA	
			$V_R = 100\text{V}$	16.0		mA	

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



2. Characteristics Curves

Ratings and Characteristics Curves

(TA = 25°C unless otherwise specified)

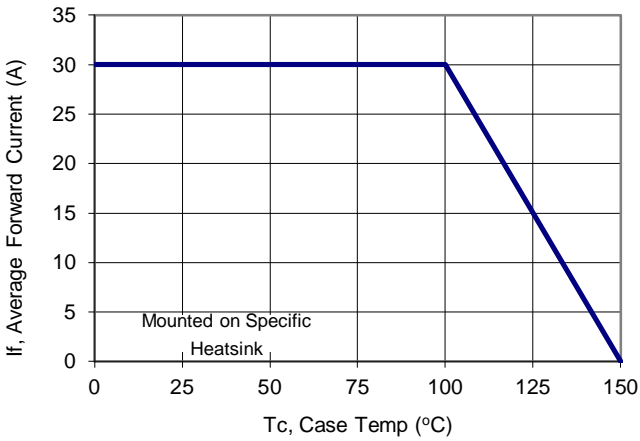


Figure 1: Current Derating, Case

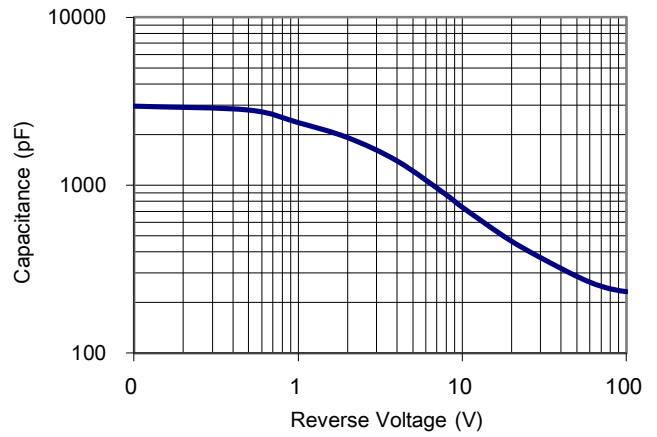


Figure 2: Typical Junction Capacitance

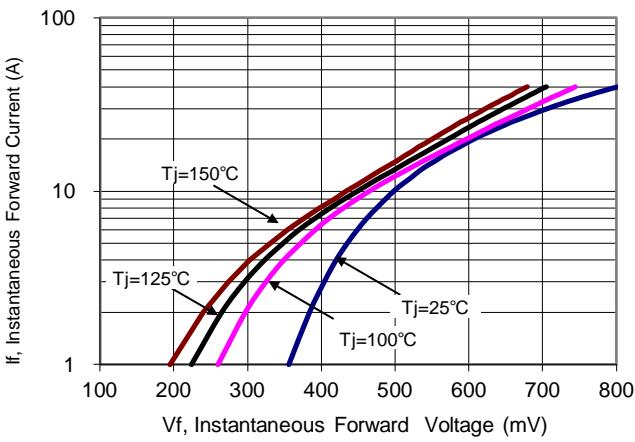


Figure 3: Typical Forward Voltage

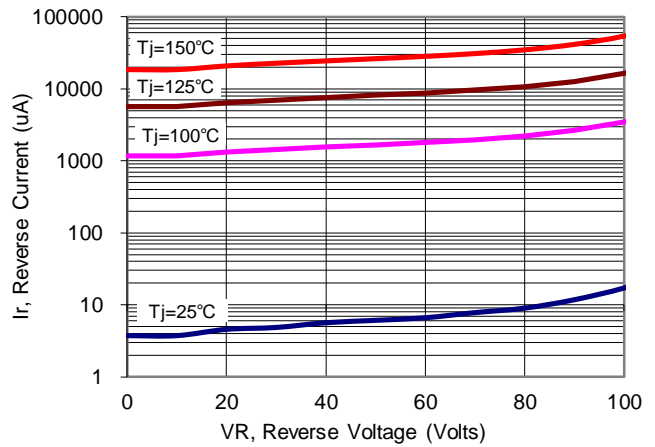


Figure 4: Typical Reverse Current



3. Marking information

Top Marking Rule

PFC PTR
60L100CT
YYWW ABSH

PTR60L100CT = 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)

PFC PTR
60L100CTF
YYWW ABSH

PTR60L100CTF = 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)

PFC PTR
60L100CTI
YYWW ABSH

PTR60L100CTI = Product Type Marking Code
 YYWW = Date Code
 YY = Last two digits of year
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 AB = Assembly code
 S = Series Number
 H = Halogen Free (N/A = common molding compound)

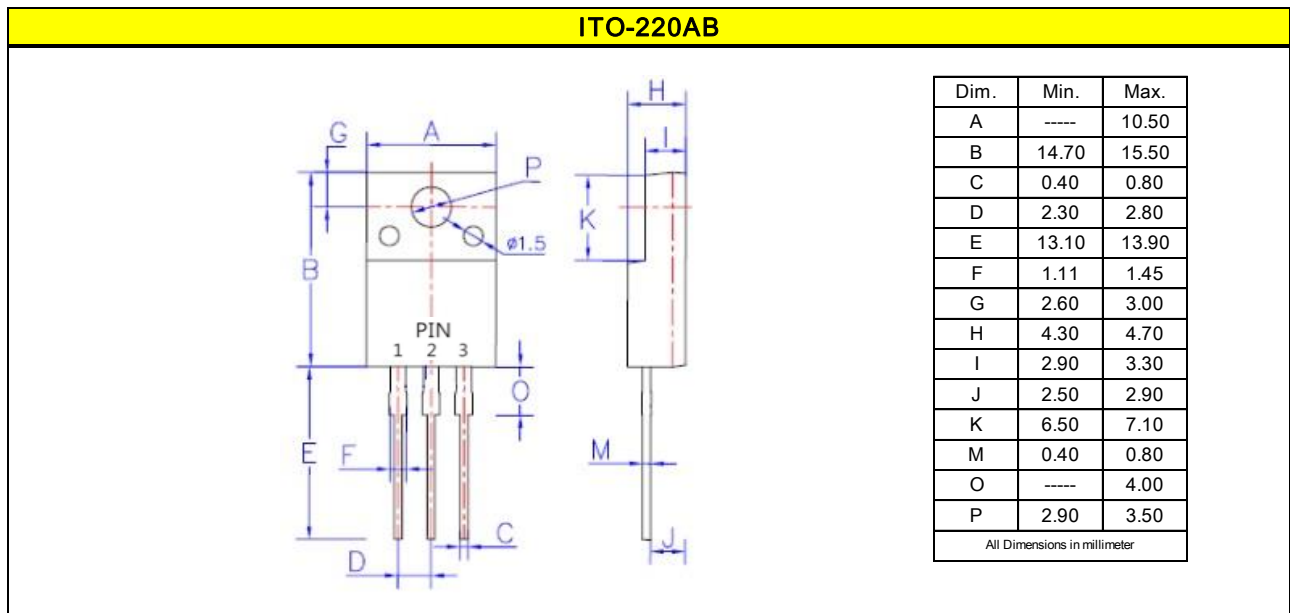
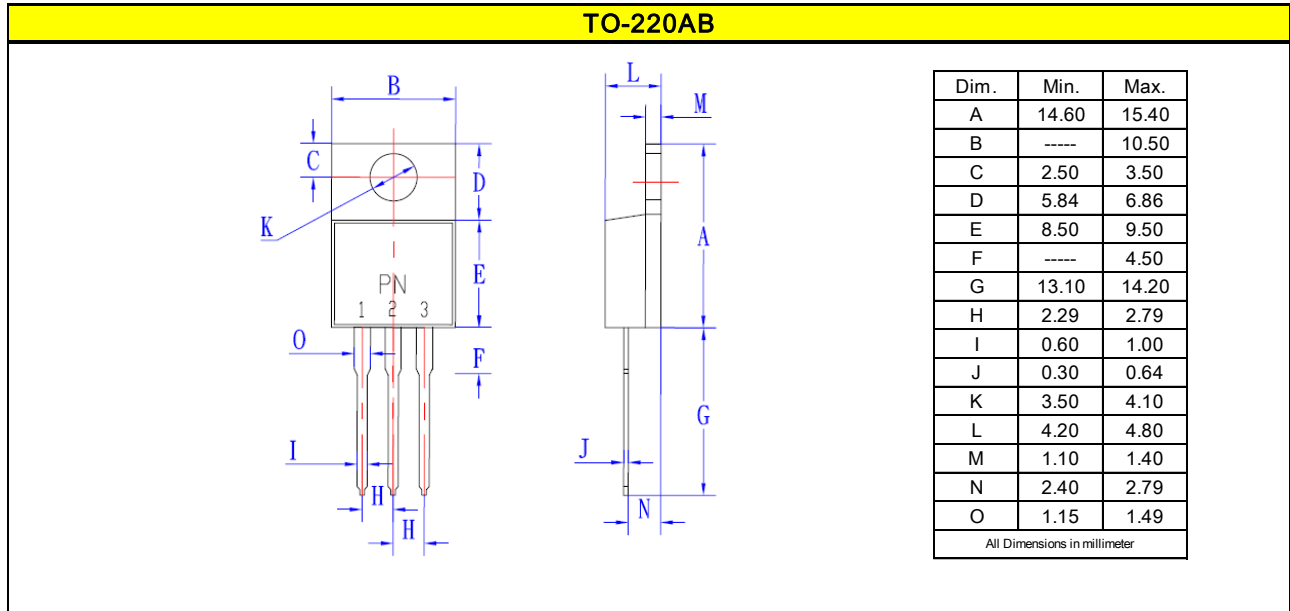
PFC PTR
60L100CTB
YYWW ABSH

PTR60L100CTB = 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)

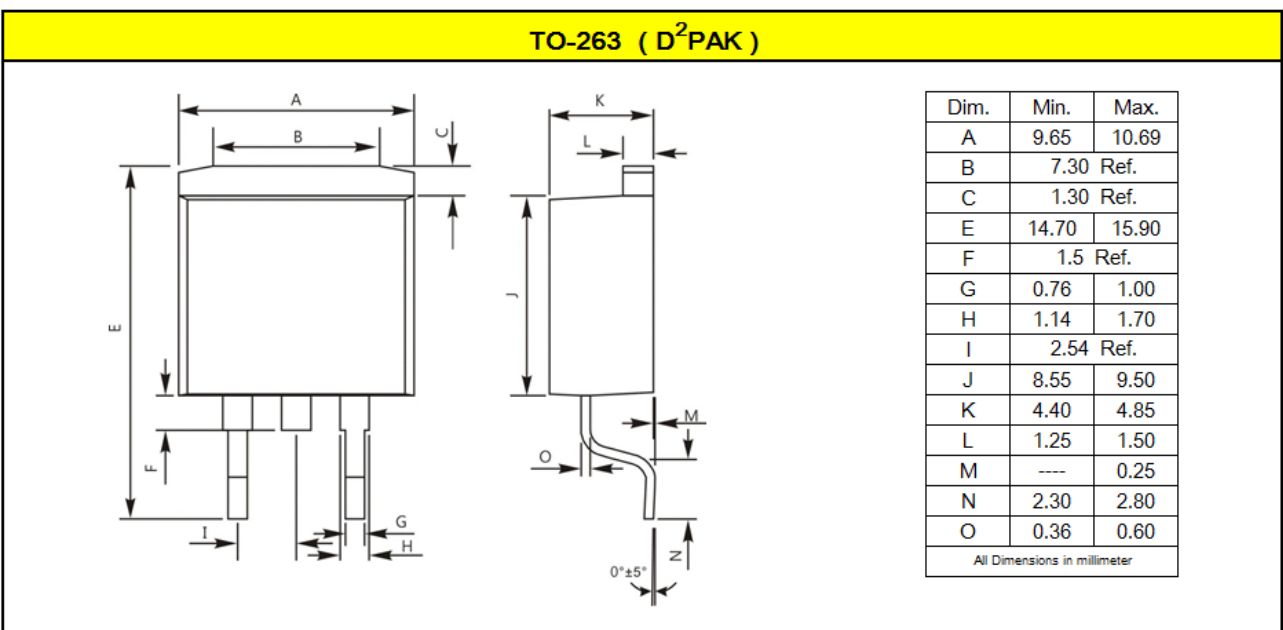
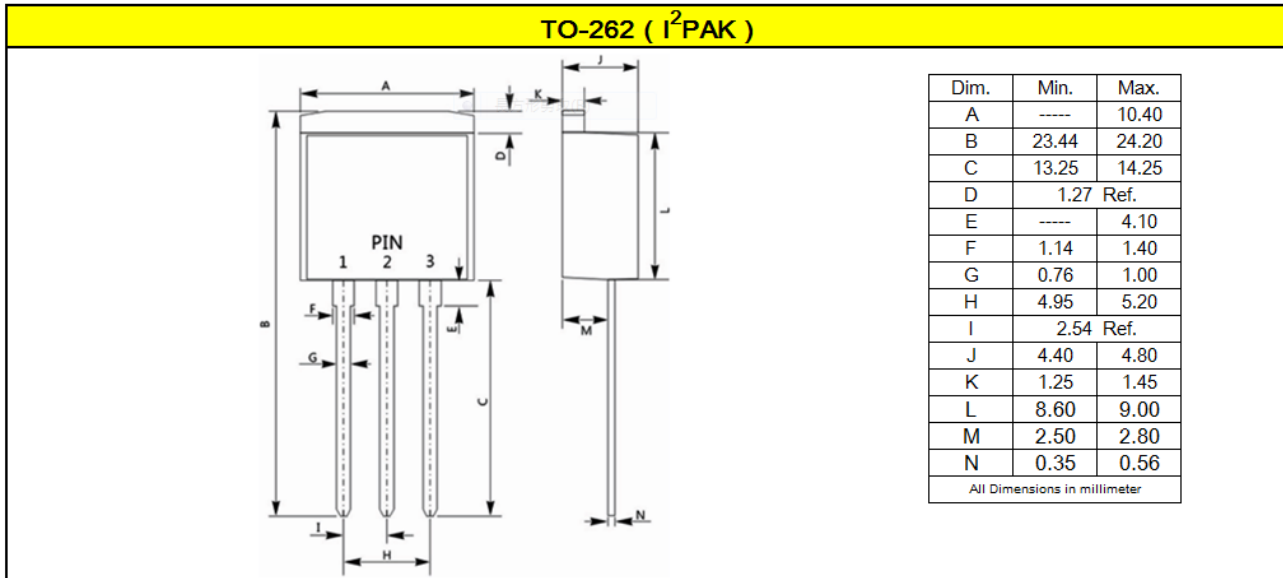


4. Package information

Package Outline Dimensions millimeters



Package Outline Dimensions millimeters



5. Ordering information

Part Number	Package	Delivery mode
PTR60L100CT	TO-220AB	50 pieces / tube
PTR60L100CTF	ITO-220AB	50 pieces / tube
PTR60L100CTI	TO-262	50 pieces / tube
PTR60L100CTB	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.

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