

PFC Device Corporation

P20200E P20200D

20A 200V MOS Schottky Rectifier

Major ratings and characteristics

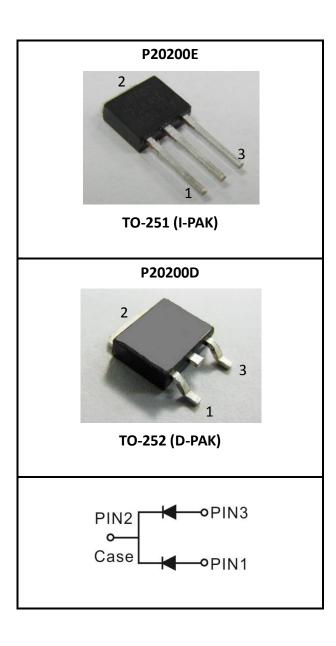
Characteristics	Values	Units	
I _{F(AV)} Rectangular	10 × 2	А	
Waveform	10 % 2		
V_{RRM}	200	V	
V _F @ 10A , Tj=125 °C	0.72	V, typ.	
T _J Operating Junction	6F to 117F	°C	
Temperature	-65 to +175		

Features

- Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 175°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 ($T_A = 25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}		
Working Peak Reverse Voltage	V_{RWM}	200	Volts
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current			
Per device	Io	20	Amps
(Rated VR-20Khz Square Wave) - 50% duty cycle			
Peak Forward Surge Current - 1/2 60hz	I _{FSM}	100	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	0.5	Amps
Typical Thermal Resistance (per leg)			
Package = I-PAK TO-251	$R\theta_{JC}$	6	°C / W
Package D-PAK TO-252		6	
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10000	V/uS
Operating Junction Temperature	TJ	T _J - 65 to +175 °C	
Storage Junction Temperature	T _{STG}	- 65 to +175	

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

Parameter	Test Con	ditions	Symbol	Тур.	Max.	Units
Instantaneous	IF - 10 A	T _J = 25 °C	\/୮*		0.95	Volte
Forward Voltage	IF = 10 A	T _J = 125 °C	VF*	0.72	0.85	Volts
Instantaneous	At V _{RM}	T _J = 25 °C	IR*		100	uA
Reverse Current		T _J = 125 °C			10	mA
* Pulse width < 300 uS, Duty cycle < 2%						

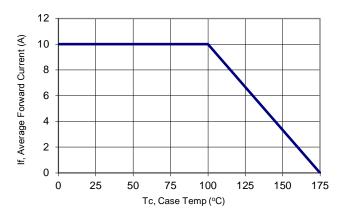


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2. Characteristics Curves

Ratings and Characteristics Curves

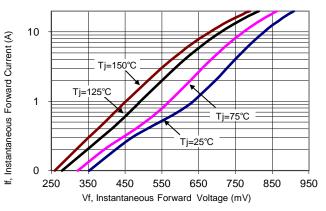
($TA = 25^{\circ}C$ unless otherwise specified)



120
(v) 100
80
80
40
20
1 100 100
Number of Cycles at 60 Hz

Figure 1: Current Derating, Case

Figure 2: Maximum Repetitive Surge Current



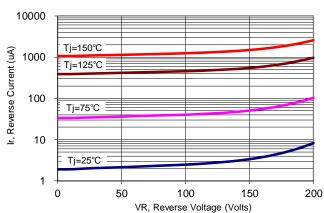


Figure 3: Typical Forward Voltage

Figure 4: Typical Reverse Current

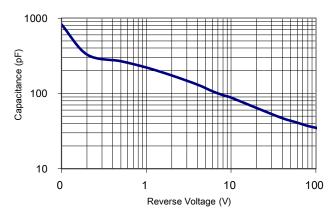


Figure 5: Typical Junction Capacitance



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3. Marking information

Top Marking Rule

PFC P20200E YYWW ABSH P20200E = 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 P20200D YYWW ABSH P20200D = Product Type Marking Code

YYWW = Date Code

YY = Last two digits of year

WW = Week code

AB = Assembly code

S = Series Number

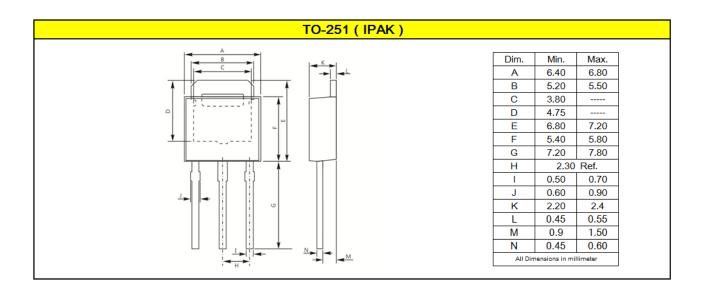
H = Halogen Free (N/A = common molding compound)

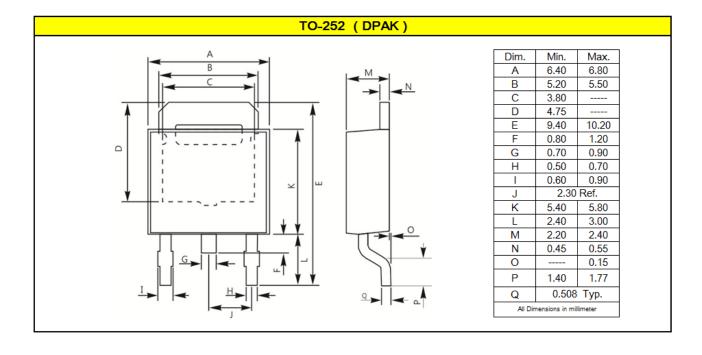


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4. Package information

Package Outline Dimensions millimeters







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5. Ordering information

Part Number	Package	Delivery mode
P20200E	TO-251 (I-PAK)	75 pieces / tube
P20200D	TO-252 (D-PAK)	2500 pcs / 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: 0.01 ounces (0.3grams) - TO-251 (I-PAK)
 0.01 ounces (0.3grams) - TO-252 (D-PAK)

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