

# MBR30H100CT, MBRF30H100CT, MBRB30H100CT

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# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_C = 25$ °C unless otherwise noted)								
PARAMETER	SYMBOL	TEST CONDITIONS		VALUE	UNIT			
Maximum instantaneous forward voltage per diode	V <sub>F</sub> (1)	I <sub>F</sub> = 15 A	T <sub>J</sub> = 25 °C	0.82	V			
		I <sub>F</sub> = 15 A	T <sub>J</sub> = 125 °C	0.67				
		I <sub>F</sub> = 30 A	T <sub>J</sub> = 25 °C	0.93				
		I <sub>F</sub> = 30 A	T <sub>J</sub> = 125 °C	0.80				
Maximum reverse current per diode	I <sub>R</sub> <sup>(2)</sup>	Rated V <sub>R</sub>	T <sub>J</sub> = 25 °C	5.0	μA			
			T <sub>J</sub> = 125 °C	6.0	mA			

Note

<sup>(1)</sup> Pulse test: 300 µs pulse width, 1 % duty cycle

<sup>(2)</sup> Pulse test: Pulse width,  $\leq$  40 ms

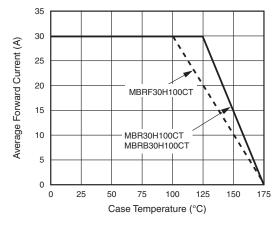
<b>THERMAL CHARACTERISTICS</b> ( $T_c = 25 \text{ °C}$ unless otherwise noted)							
PARAMETER	SYMBOL	MBR	MBRF	MBRB	UNIT		
Typical thermal resistance per diode	$R_{\theta JC}$	1.9	4.6	1.9	°C/W		

ORDERING INFORMATION (Example)								
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE			
TO-220AB	MBR30H100CT-E3/45	1.85	45	50/tube	Tube			
ITO-220AB	MBRF30H100CT-E3/45	1.99	45	50/tube	Tube			
TO-263AB	MBRB30H100CT-E3/45	1.35	45	50/tube	Tube			
TO-263AB	MBRB30H100CT-E3/81	1.35	81	800/reel	Tape and reel			

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#### **RATINGS AND CHARACTERISTICS CURVES** ( $T_C = 25$ °C unless otherwise noted)



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Fig. 1 - Forward Derating Curve Per Diode

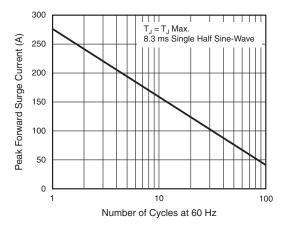


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

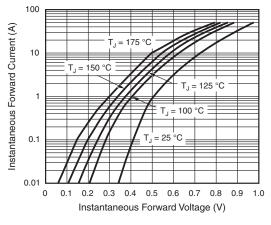


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

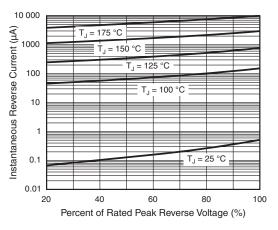


Fig. 4 - Typical Reverse Characteristics Per Diode

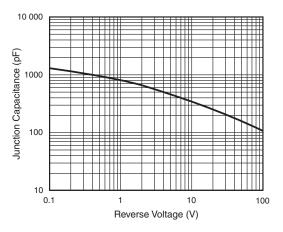


Fig. 5 - Typical Junction Capacitance Per Diode

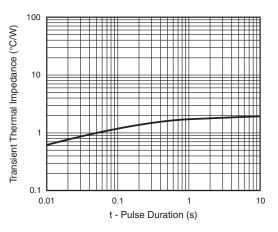


Fig. 6 - Typical Transient Thermal Impedance Per Diode

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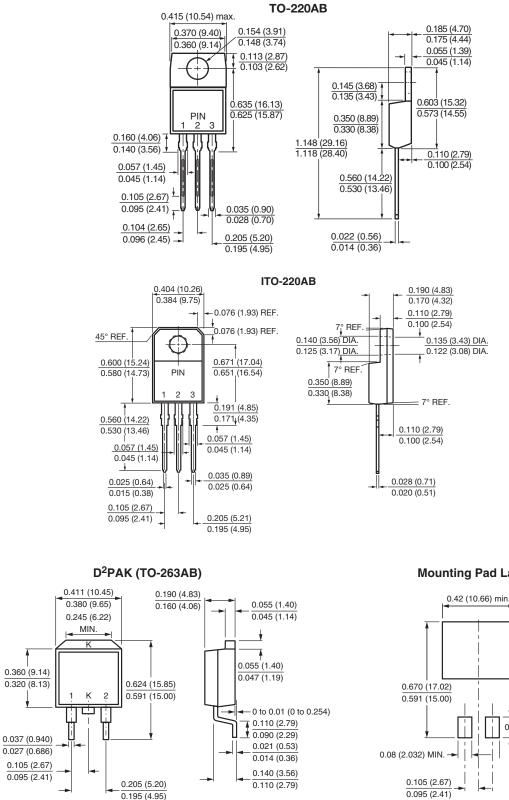
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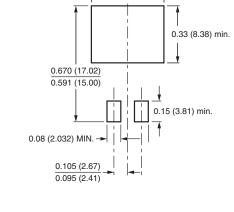
#### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)

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**Mounting Pad Layout** 



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