# MBR20H200CT, MBRF20H200CT, SB20H200CT-1

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## Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>C</sub> = 25 °C unless otherwise noted)								
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT		
Maximum instantaneous forward voltage per diode	I <sub>F</sub> = 10 A	T <sub>C</sub> = 25 °C	V <sub>F</sub> <sup>(1)</sup>	0.81	0.88	- V		
	I <sub>F</sub> = 10 A	T <sub>C</sub> = 125 °C		0.65	0.75			
	I <sub>F</sub> = 20 A	T <sub>C</sub> = 25 °C		0.87	0.97			
	I <sub>F</sub> = 20 A	T <sub>C</sub> = 125 °C		0.74	0.85			
Maximum reverse current per diode at working peak reverse voltage		T <sub>J</sub> = 25 °C	I <sub>R</sub> <sup>(1)</sup>	5.0		μA		
		T <sub>J</sub> = 125 °C	IR (')	1.0		mA		
Typical junction capacitance	4.0 V, 1 MHz		CJ	250		pF		

#### Notes

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

THERMAL CHARACTERISTICS (T <sub>C</sub> = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	MBR	MBRF	SB	UNIT		
Typical thermal resistance per diode	$R_{ heta JC}$	2.0	4.0	2.0	°C/W		

ORDERING INFORMATION (Example)								
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE			
TO-220AB	MBR20H200CT-E3/45	2.06	45	50/tube	Tube			
ITO-220AB	MBRF20H200CT-E3/45	2.20	45	50/tube	Tube			
TO-262AA	SB20H200CT-1E3/45	1.58	45	50/tube	Tube			

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

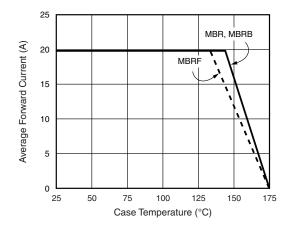


Fig. 1 - Forward Derating Curve (Total)

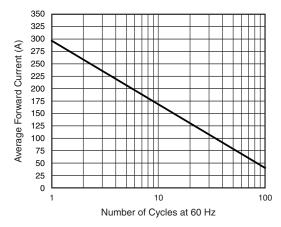


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode



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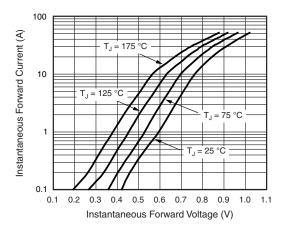


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

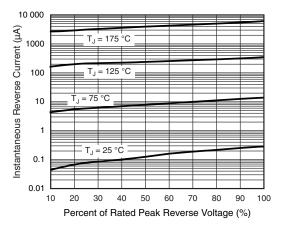
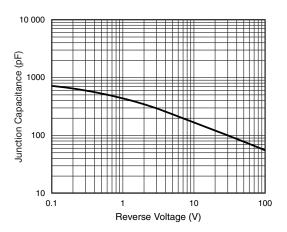


Fig. 4 - Typical Reverse Characteristics Per Diode



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Fig. 5 - Typical Junction Capacitance Per Diode

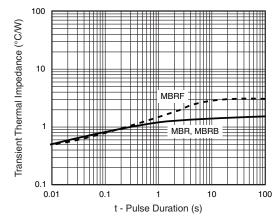


Fig. 6 - Typical Transient Thermal Impedance Per Diode

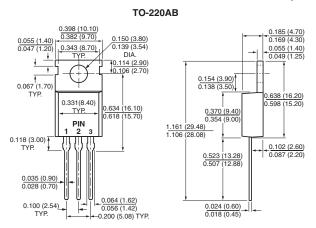


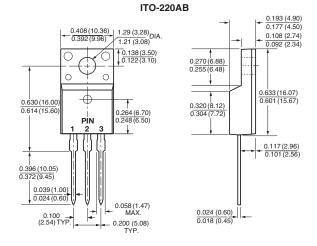
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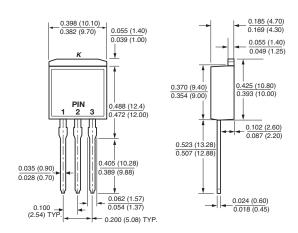
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#### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





#### TO-262AA



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