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# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_c = 25 \degree C$ unless otherwise noted)							
PARAMETER	SYMBOL	TEST CONDITIONS		MBR20H60CT		UNIT	
				TYP.	MAX.		
Maximum instantaneous forward voltage per diode	V <sub>F</sub> <sup>(1)</sup>	I <sub>F</sub> = 10 A	T <sub>C</sub> = 25 °C	-	0.71	- V	
		I <sub>F</sub> = 10 A	T <sub>C</sub> = 125 °C	0.57	0.61		
		I <sub>F</sub> = 20 A	T <sub>C</sub> = 25 °C	-	0.85		
		I <sub>F</sub> = 20 A	T <sub>C</sub> = 125 °C	0.68	0.71		
Maximum reverse current per diode	I <sub>R</sub> <sup>(2)</sup>	Rated V <sub>R</sub>	T <sub>J</sub> = 25 °C	-	100	μA	
			T <sub>J</sub> = 125 °C	2.0	12	mA	

Notes

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

 $^{(2)}$  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 resistance, junction to case per diode	$R_{ extsf{ heta}JC}$	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	MBR20H60CT-E3/45	1.85	45	50/tube	Tube		
ITO-220AB	MBRF20H60CT-E3/45	1.99	45	50/tube	Tube		
TO-263AB	MBRB20H60CT-E3/45	1.35	45	50/tube	Tube		
TO-263AB	MBRB20H60CT-E3/81	1.35	81	800/reel	Tape and reel		
TO-220AB	MBR20H60CTHE3/45 <sup>(1)</sup>	1.85	45	50/tube	Tube		
ITO-220AB	MBRF20H60CTHE3/45 <sup>(1)</sup>	1.99	45	50/tube	Tube		
TO-263AB	MBRB20H60CTHE3/45 (1)	1.35	45	50/tube	Tube		
TO-263AB	MBRB20H60CTHE3/81 (1)	1.35	81	800/reel	Tape and reel		
TO-263AB	MBRB20H60CTHE3_A/P <sup>(1)</sup>	1.35	Р	50/tube	Tube		
TO-263AB	MBRB20H60CTHE3_A/I <sup>(1)</sup>	1.35	I	800/reel	Tape and reel		

Note

(1) AEC-Q101 qualified



### MBR20H60CT, MBRF20H60CT, MBRB20H60CT

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

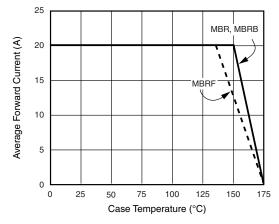


Fig. 1 - Forward Current Derating Curve (Total)

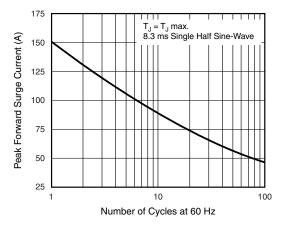


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

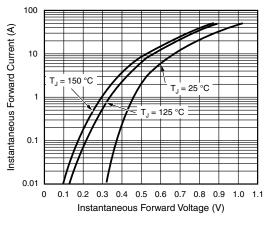


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

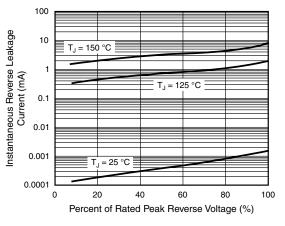


Fig. 4 - Typical Reverse Characteristics Per Diode

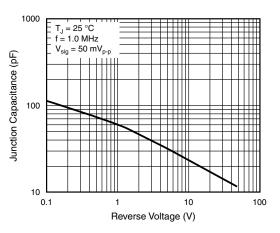


Fig. 5 - Typical Junction Capacitance Per Diode

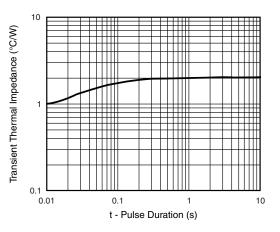


Fig. 6 - Typical Transient Thermal Impedance Per Diode

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3

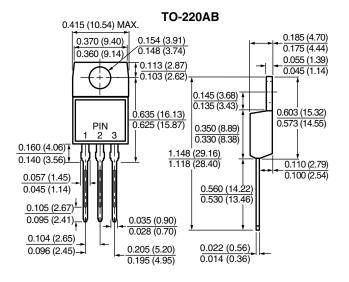
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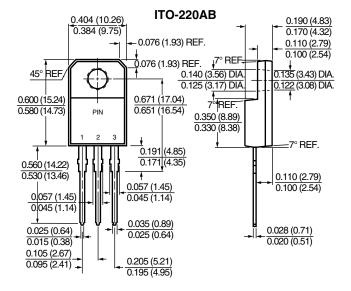


## MBR20H60CT, MBRF20H60CT, MBRB20H60CT

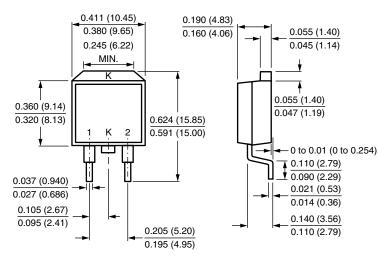
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### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)

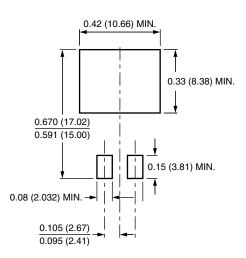




#### TO-263AB



#### **Mounting Pad Layout**



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