# MBR10H150CT, MBRF10H150CT, SB10H150CT-1

# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)								
PARAMETER	SYMBOL	TEST CONDITIONS		TYP.	MAX.	UNIT		
Maximum instantaneous forward voltage per diode	V <sub>F</sub> <sup>(1)</sup>	I <sub>F</sub> = 5 A	T <sub>J</sub> = 25 °C	-	0.88	V		
		I <sub>F</sub> = 5 A	T <sub>J</sub> = 125 °C	=	0.72			
		I <sub>F</sub> = 10 A	T <sub>J</sub> = 25 °C	-	0.96			
		I <sub>F</sub> = 10 A	T <sub>J</sub> = 125 °C	=	0.80			
Maximum reverse current per diode at working peak reverse voltage	I <sub>R</sub> <sup>(2)</sup>		T <sub>J</sub> = 25 °C	=	5.0	μΑ		
			T <sub>J</sub> = 125 °C	-	1.0	mA		

#### Notes

<sup>(2)</sup> Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	MBR	MBRF	MBRB	UNIT		
Typical thermal resistance per diode	$R_{\theta JC}$	2.4	4.5	2.4	°C/W		

ORDERING INFORMATION (Example)									
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
TO-220AB	MBR10H150CT-E3/45	2.06	45	50/tube	Tube				
ITO-220AB	MBRF10H150CT-E3/45	2.20	45	50/tube	Tube				
TO-262AA	SB10H150CT-1E3/45	1.58	45	50/tube	Tube				

#### RATINGS AND CHARACTERISTICS CURVES (T<sub>A</sub> = 25 °C unless otherwise noted)

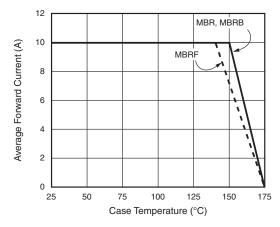


Fig. 1 - Forward Derating Curve (Total)

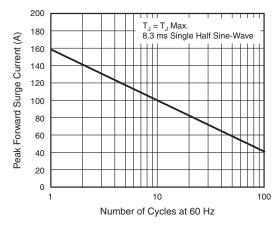


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

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



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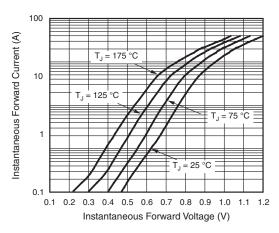


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

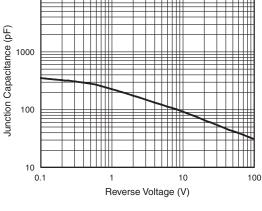


Fig. 5 - Typical Junction Capacitance Per Diode

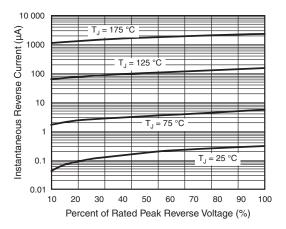


Fig. 4 - Typical Reverse Characteristics Per Diode

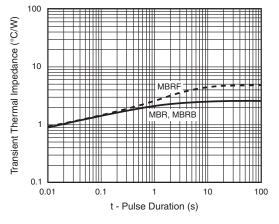


Fig. 6 - Typical Transient Thermal Impedance Per Diode



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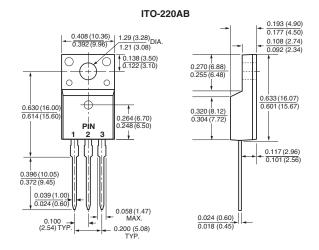
#### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)

0.024 (0.60) 0.018 (0.45)

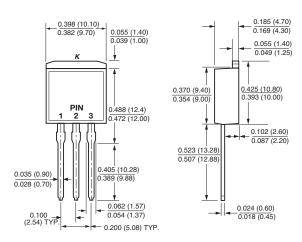
# TO-220AB 0.398 (10.10) 0.382 (9.70) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.150 (3.80) 0.0055 (1.40) 0.0055

0.064 (1.62) 0.056 (1.42) -0.200 (5.08) TYP.

www.vishay.com



#### TO-262AA



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