MBR40H35PT, MBR40H45PT, MBR40H50PT, MBR40H60PT

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<b>ELECTRICAL CHARACTERISTICS</b> ( $T_C = 25$ °C unless otherwise noted)									
PARAMETER	TEST CONDITIONS		SYMBOL	MBR40H35PT MBR40H45PT		MBR40H50PT MBR40H60PT		UNIT	
				TYP.	MAX.	TYP.	MAX.	İ İ	
Maximum instantaneous forward voltage per diode <sup>(1)</sup>	I <sub>F</sub> = 20 A	T <sub>J</sub> = 25 °C	V <sub>F</sub>	-	0.63	-	0.69	V	
	I <sub>F</sub> = 20 A	T <sub>J</sub> = 125 °C		0.49	0.55	0.56	0.60		
	$I_F = 40 \text{ A}$	T <sub>J</sub> = 25 °C		-	0.73	-	0.83		
	$I_F = 40 \text{ A}$	T <sub>J</sub> = 125 °C		0.62	0.66	0.68	0.72		
Maximum reverse current at rated V <sub>R</sub> per diode <sup>(2)</sup>		T <sub>J</sub> = 25 °C T <sub>J</sub> = 125 °C	I <sub>R</sub>	- 9.0	150 25	- 6.0	150 25	μA mA	

#### Notes

 $^{(1)}\,$  Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

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

THERMAL CHARACTERISTICS								
PARAMETER	SYMBOL	MBR40H35PT	MBR40H45PT	MBR40H50PT	MBR40H60PT	UNIT		
Thermal resistance, junction to case per diode	R <sub>0JC</sub>	1.2				°C/W		

ORDERING INFORMATION (Example)									
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
TO-247AD	MBR40H45PT-E3/45	6.13	45	30/tube	Tube				

## MBR40H35PT, MBR40H45PT, MBR40H50PT, MBR40H60PT



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

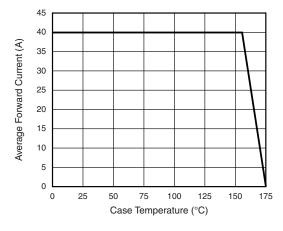


Fig. 1 - Forward Current Derating Curve

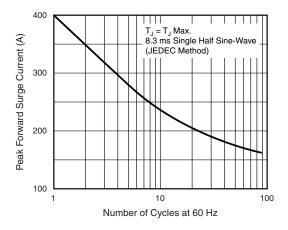


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

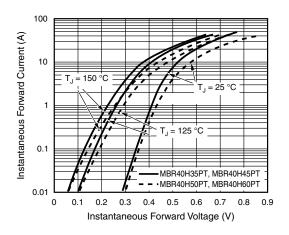


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

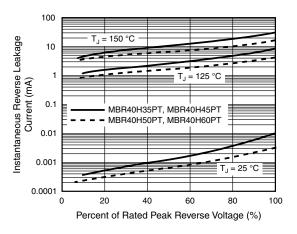


Fig. 4 - Typical Reverse Characteristics Per Diode

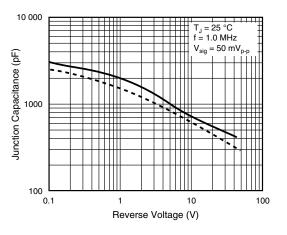


Fig. 5 - Typical Junction Capacitance Per Diode

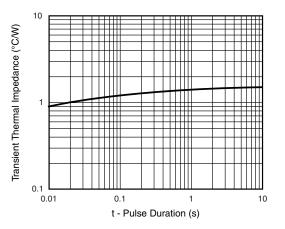


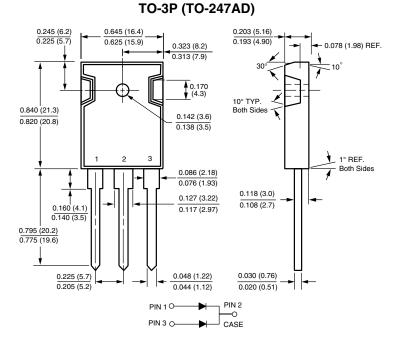
Fig. 6 - Typical Transient Thermal Impedance Per Diode

Revision: 27-May-2020 3 Document Number: 88794 For technical questions within your region: <u>DiodesAmericas@vishay.com</u>, <u>DiodesAsia@vishay.com</u>, <u>DiodesEurope@vishay.com</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u> MBR40H35PT, MBR40H45PT, MBR40H50PT, MBR40H60PT



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





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