MBR40H35PT, MBR40H45PT, MBR40H50PT, MBR40H60PT

www.vishay.com

SHAY

Vishay General Semiconductor

ELECTRICAL CHARACTERISTICS ($T_C = 25$ °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 ⁽¹⁾	I _F = 20 A	T _J = 25 °C	V _F	-	0.63	-	0.69	V	
	I _F = 20 A	T _J = 125 °C		0.49	0.55	0.56	0.60		
	$I_F = 40 \text{ A}$	T _J = 25 °C		-	0.73	-	0.83		
	$I_F = 40 \text{ A}$	T _J = 125 °C		0.62	0.66	0.68	0.72		
Maximum reverse current at rated V _R per diode ⁽²⁾		T _J = 25 °C T _J = 125 °C	I _R	- 9.0	150 25	- 6.0	150 25	μA mA	

Notes

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

⁽²⁾ Pulse test: Pulse width \leq 40 ms

THERMAL CHARACTERISTICS								
PARAMETER	SYMBOL	MBR40H35PT	MBR40H45PT	MBR40H50PT	MBR40H60PT	UNIT		
Thermal resistance, junction to case per diode	R _{0JC}	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



Vishay General Semiconductor

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

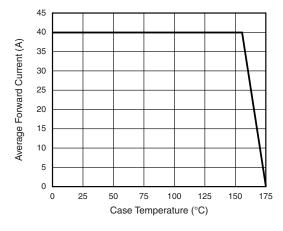


Fig. 1 - Forward Current Derating Curve

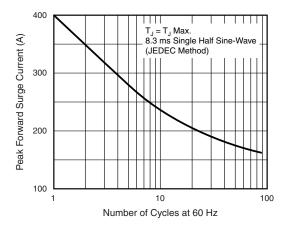


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

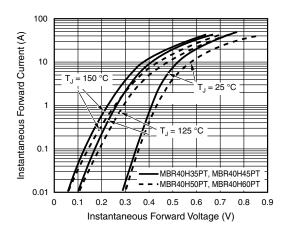


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

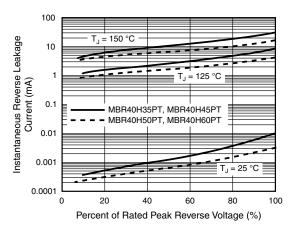


Fig. 4 - Typical Reverse Characteristics Per Diode

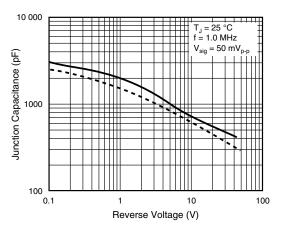


Fig. 5 - Typical Junction Capacitance Per Diode

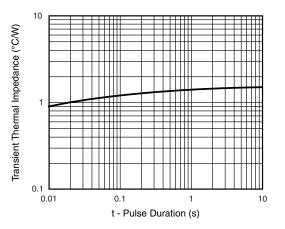


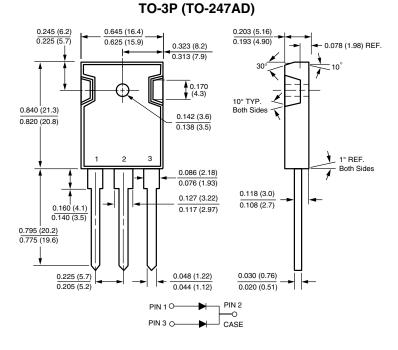
Fig. 6 - Typical Transient Thermal Impedance Per Diode

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



Vishay General Semiconductor

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

MBR40H45PT-E3/45 MBR40H60PT-E3/45 MBR40H35PT-E3/45