

GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIERS

Features

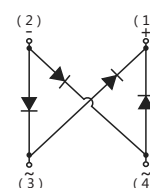
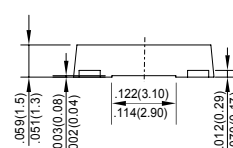
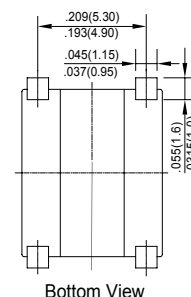
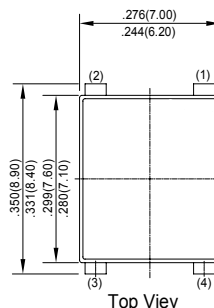
- ◆ Glass Passivated Chip Junction
- ◆ Reverse Voltage - 200 to 1000 V
- ◆ Forward Current- 4 A
- ◆ High Surge Current Capability
- Designed for Surface Mount Application

Mechanical Data

Case : JEDEC UMSB molded plastic body
 Terminals : Solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbol marking on body
 Mounting Position : Any
 Weight : 0.00825 ounce, 0.234 grams

UMSB

ROHS
COMPLIANT



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	MSB40D	MSB40G	MSB40J	MSB40K	MSB40M	Units
Marking Code		MDD MB40D	MDD MB40G	MDD MB40J	MDD MB40K	MDD MB40M	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	4					A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	95					A
Maximum Forward Voltage at 4.0 A	V_F	1.1					V
Maximum DC Reverse Current @ $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_a=125^\circ\text{C}$	I_R	5 100					μA
Typical Junction Capacitance per element	C_j	50					pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 10 25					$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150					$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. P.C.B. mounted with 4×1.5"×1.5" (3.81×3.81 cm) copper pad areas.

Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

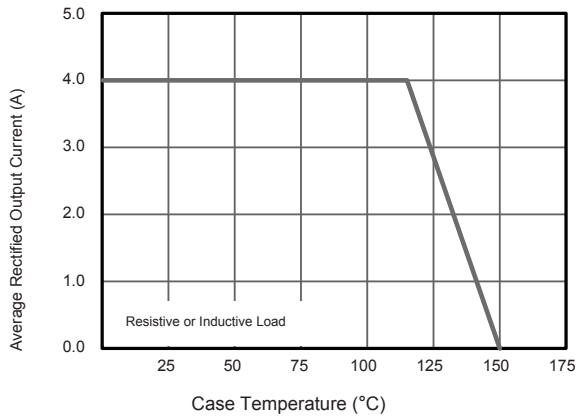


Fig.2 Typical Reverse Characteristics

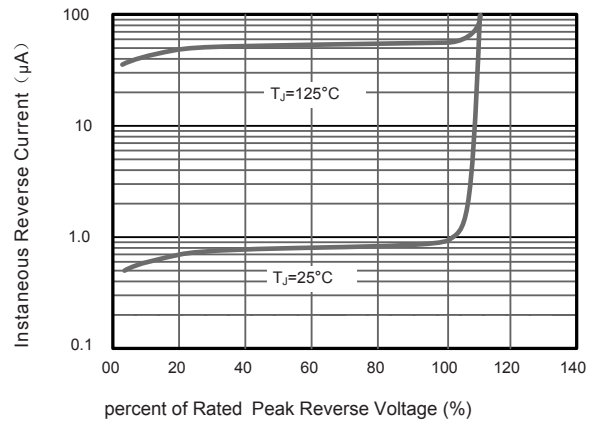


Fig.3 Typical Instantaneous Forward Characteristics T_J = 25°C

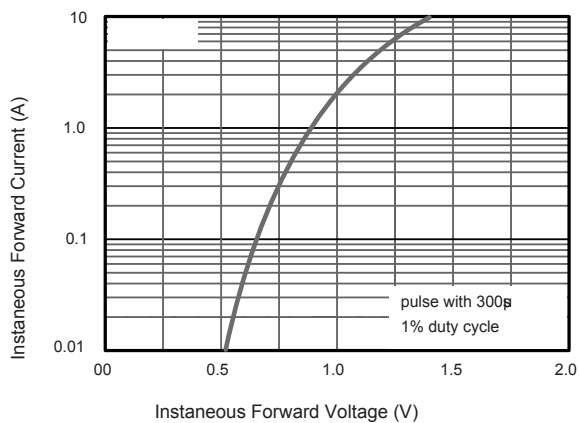


Fig.4 Typical Junction Capacitance

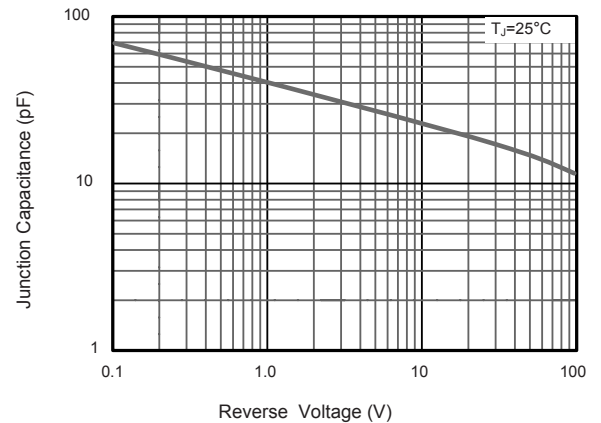


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

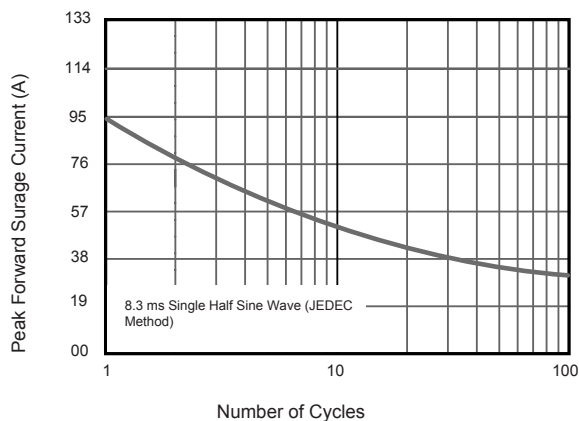
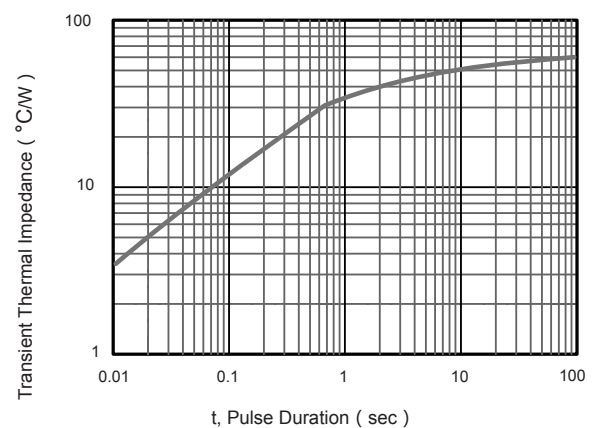


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.



Important Notice and Disclaimer

Microdiode Electronics (Shenzhen) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Microdiode Electronics (Shenzhen) makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Microdiode Electronics (Shenzhen) assume any liability for application assistance or customer product design. Microdiode Electronics (Shenzhen) does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Microdiode Electronics (Shenzhen).

Microdiode Electronics (Shenzhen) products are not authorized for use as critical components in life support devices or systems without express written approval of Microdiode Electronics (Shenzhen).