



**THE DATASHEET OF  
MB1505**



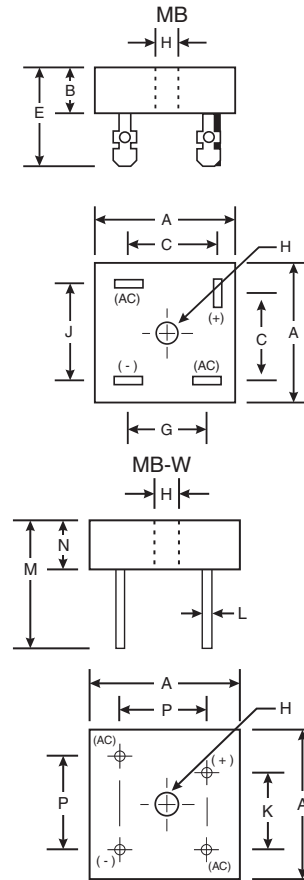
NOT RECOMMENDED FOR NEW DESIGN, USE  
GBPC15 SERIES, GBPC25 SERIES, OR GBPC35 SERIES

### Features

- High Conductivity
- Metal Case
- Superior Thermal Design
- Terminals Solderable per MIL-STD-202, Method 208
- Universal Terminals; Snap-on, Solder or P.C. Board Mounting
- **Lead Free Finish, RoHS Compliant (Date Code 0514+)**  
(Note 2)

### Mechanical Data

- Terminals: 0.25" Faston Terminals
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Approx Weight: 29 grams
- Mounting Position: Bolt Down on Heat-sink with Silicone Thermal Compound Between Bridge and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 20 in. lb. Max.
- Polarity: Polarity Symbols Marked on Case



Dim	Min	Max
A	28.40	28.70
B	10.97	11.23
C	15.50	17.60
E	22.86	25.40
G	13.30	15.30
H	Hole for #10 screw	
	4.85Ø	5.59Ø
J	17.10	19.10
K	10.40	12.40
L	0.97Ø Nominal	1.07Ø
M	30.50	—
N	10.97	11.23
P	17.10	19.10

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Suffix "W" denotes wire leads

Characteristic	Symbol	-05	-1	-2	-4	-6	-8	-10	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Rectified Output Current @ $T_C = 55^\circ\text{C}$	MB15 MB25 MB35 $I_{(AV)}$				15.0 25.0 35.0				A
Peak Forward Surge Current Single Half Sine-Wave Superimposed on Rated Load	MB15 MB25 MB35 $I_{FSM}$				300 300 400				A
Maximum Instantaneous @ 7.5A Forward Voltage Drop per @ 12.5A Rated Load @ 17.5A	MB15 MB25 MB35 $V_F$				1.1 1.1 1.2				V
Maximum Reverse DC current at Rated DC Blocking Voltage (per Element) @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	$I_R$				10 1.0				$\mu\text{A}$ mA
$I^2t$ rating for fusing (8.3ms)	MB15 MB25 MB35 $I^2t$				373 373 664				$\text{A}^2\text{s}$
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$				2.5				$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$				-55 to +150				$^\circ\text{C}$

Notes: 1. Thermal Resistance from junction to case

2. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7.*

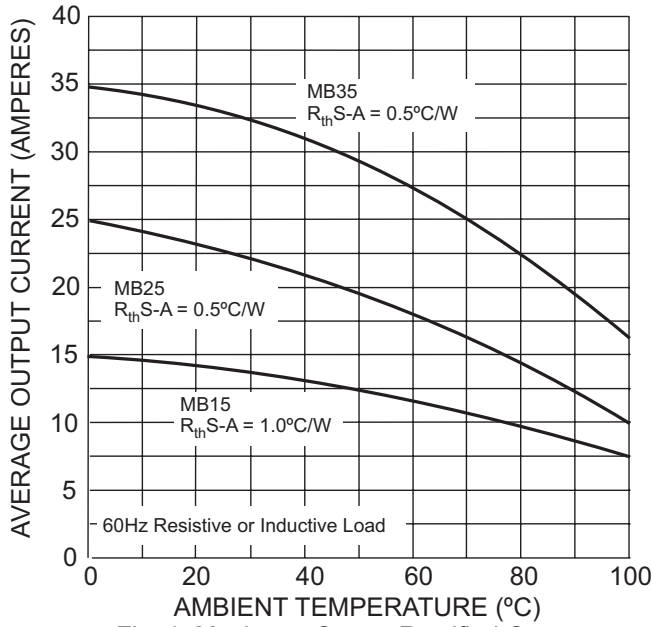


Fig. 1 Maximum Output Rectified Current

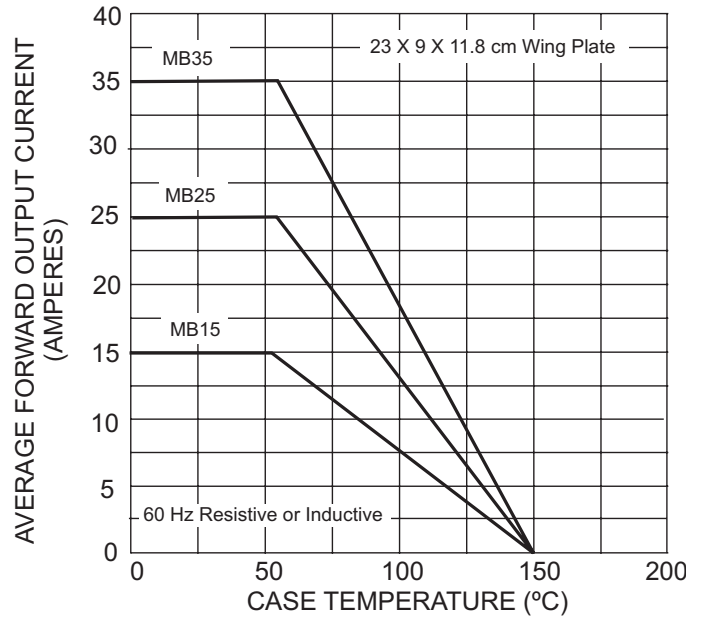


Fig. 2 Maximum Output Rectified Current

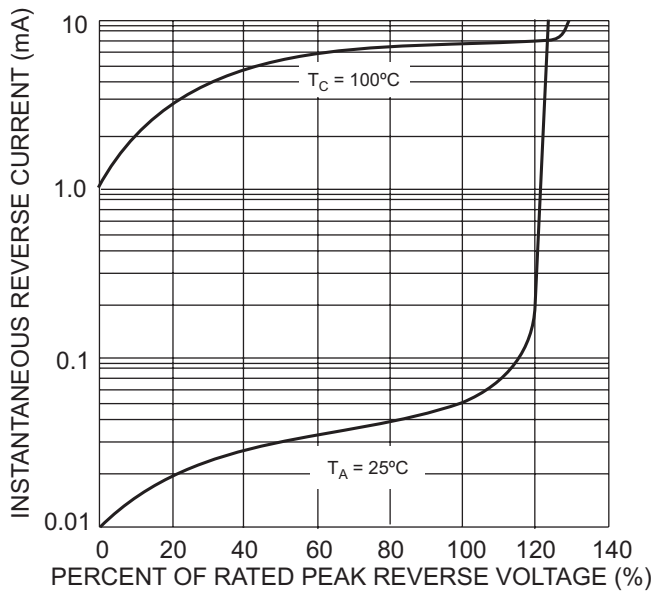


Fig. 3 Typical Reverse Characteristics

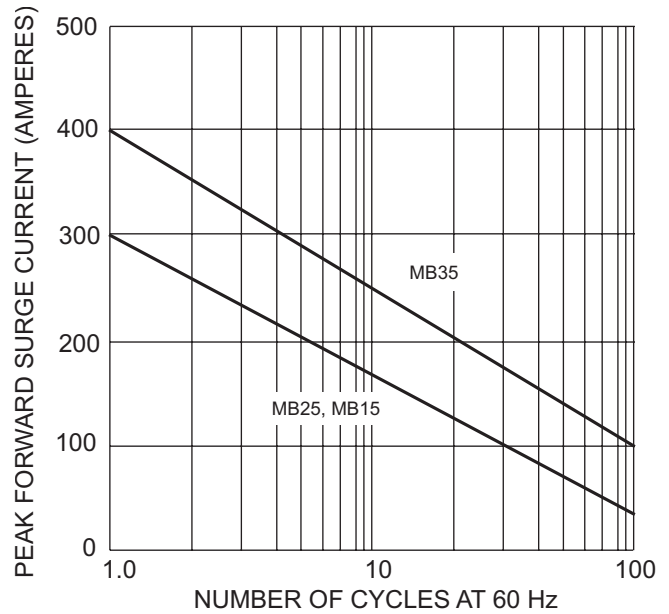


Fig. 4 Maximum Non-Repetitive Peak Forward Surge current

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**Ordering Information** (Note 3)

Device	Packaging	Shipping
MB1505	MB	100/Bulk
MB151	MB	100/Bulk
MB152	MB	100/Bulk
MB154	MB	100/Bulk
MB156	MB	100/Bulk
MB158	MB	100/Bulk
MB1510	MB	100/Bulk
MB1505W	MB-W	100/Bulk
MB151W	MB-W	100/Bulk
MB152W	MB-W	100/Bulk
MB154W	MB-W	100/Bulk
MB156W	MB-W	100/Bulk
MB158W	MB-W	100/Bulk
MB1510W	MB-W	100/Bulk
MB2505	MB	100/Bulk
MB251	MB	100/Bulk
MB252	MB	100/Bulk
MB254	MB	100/Bulk
MB256	MB	100/Bulk
MB258	MB	100/Bulk
MB2510	MB	100/Bulk
MB2505W	MB-W	100/Bulk
MB251W	MB-W	100/Bulk
MB252W	MB-W	100/Bulk
MB254W	MB-W	100/Bulk
MB256W	MB-W	100/Bulk
MB258W	MB-W	100/Bulk
MB2510W	MB-W	100/Bulk
MB3505	MB	100/Bulk
MB351	MB	100/Bulk
MB352	MB	100/Bulk
MB354	MB	100/Bulk
MB356	MB	100/Bulk
MB358	MB	100/Bulk
MB3510	MB	100/Bulk
MB3505W	MB-W	100/Bulk
MB351W	MB-W	100/Bulk
MB352W	MB-W	100/Bulk
MB354W	MB-W	100/Bulk
MB356W	MB-W	100/Bulk
MB358W	MB-W	100/Bulk
MB3510W	MB-W	100/Bulk

Notes: 3. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap2008.pdf>

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