



**THE DATASHEET OF  
MBL108S-M3/I**





## DIODES

### MBL104S, MBL106S, MBL108S, MBL110S Bridge Rectifiers

#### Low-Profile, 1 A Miniature Glass Passivated Single-Phase Surface-Mount Bridge Rectifiers for Smartphone Charger Applications



#### KEY BENEFITS

- Maximum peak reverse voltage ratings to 1000 V
- Glass passivated chip technology
- Low typical height of 1.4 mm
- Surface-mount MBLS package is compatible with the SOPA-4
- Ideal for automated placement
- Maximum operation junction temperature of 150 °C
- RoHS-compliant
- Halogen free

#### APPLICATIONS

- General purpose use in AC/DC bridge full-wave rectification for power supplies, lighting ballasts, home appliances, office equipment, and smartphone chargers

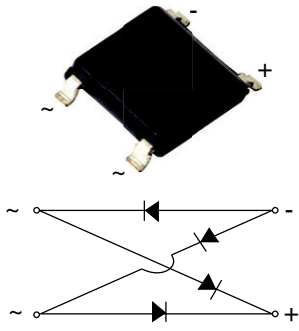
#### RESOURCES

- Datasheet: MBL104S, MBL106S, MBL108S, MBL110S, [www.vishay.com/doc?89959](http://www.vishay.com/doc?89959)
- For technical questions contact [rectifiers@vishay.com](mailto:rectifiers@vishay.com)
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



# MBL104S, MBL106S, MBL108S, MBL110S Bridge Rectifiers

## Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier



Case Style (MBLS)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

**FEATURES**

- UL recognition file number E54214
- Low profile - typical height of 1.4 mm
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

**TYPICAL APPLICATIONS**

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballaster, battery charger, home appliances, office equipment, and telecommunication applications.

**MECHANICAL DATA**

**Case:** MBLS

Epoxy meets UL 94 V-0 flammability rating

Base P/N-M3 - halogen-free, RoHS-compliant, and commercial grade

**Terminals:** Matte tin plated leads, solderable per J-STD-002 and JESD22-B102

M3 suffix, meets JESD 201 class 1A whisker test

**Polarity:** As marked on body

| PRIMARY CHARACTERISTICS |                             |
|-------------------------|-----------------------------|
| Package                 | MBLS                        |
| $I_{F(AV)}$             | 1.0 A                       |
| $V_{RRM}$               | 400 V, 600 V, 800 V, 1000 V |
| $I_{FSM}$               | 30 A                        |
| $I_R$                   | 5 $\mu$ A                   |
| $V_F$ at $I_F = 0.4$ A  | 0.95 V                      |
| $T_J$ max.              | 150 °C                      |
| Diode variations        | Quad                        |

| MAXIMUM RATINGS ( $T_A = 25$ °C unless otherwise noted)                |                            |               |         |         |         |                  |
|--|----------------------------|---------------|---------|---------|---------|------------------|
| PARAMETER  | SYMBOL                     | MBL104S       | MBL106S | MBL108S | MBL110S | UNIT             |
| Maximum repetitive peak reverse voltage                                | $V_{RRM}$                  | 400           | 600     | 800     | 1000    | V                |
| Maximum RMS voltage  | $V_{RMS}$                  | 280           | 420     | 560     | 700     | V                |
| Maximum DC blocking voltage  | $V_{DC}$                   | 400           | 600     | 800     | 1000    | V                |
| Maximum average forward output rectified current (fig. 1, fig. 2)      | $I_{F(AV)}$ <sup>(1)</sup> | 1.0           |         |         |         | A                |
| Peak forward surge current single sine-wave superimposed on rated load | $I_{FSM}$                  | 30            |         |         |         | A                |
| Rating for fusing ( $t < 8.3$ ms)                                      | $I^2t$                     | 3.0           |         |         |         | A <sup>2</sup> s |
| Operating junction and storage temperature range                       | $T_J, T_{STG}$             | - 55 to + 150 |         |         |         | °C               |

**Note**

<sup>(1)</sup> Device mounted on 0.47" x 0.47" (12 mm x 12 mm) copper pad areas, 1 oz. PCB

| ORDERING INFORMATION (Example) |                 |                        |               |                                    |
|--------------------------------|-----------------|------------------------|---------------|------------------------------------|
| PREFERRED P/N                  | UNIT WEIGHT (g) | PREFERRED PACKAGE CODE | BASE QUANTITY | DELIVERY MODE                      |
| MBL106S-M3/I                   | 0.136           | I                      | 4000          | 13" diameter plastic tape and reel |

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

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