



**THE DATASHEET OF  
MBL110S-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

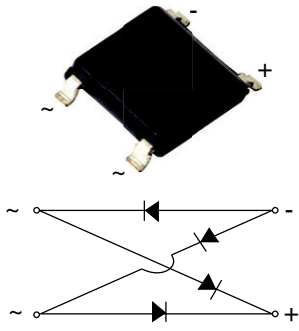
#### RESOURCES

- 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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 [Vishay Information](#)

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