



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

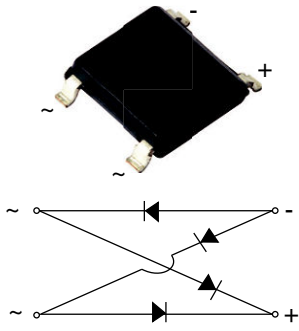
RESOURCES

- Datasheet: MBL104S, MBL106S, MBL108S, MBL110S, www.vishay.com/doc?89959
- For technical questions contact 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

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 μ 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)	$I_{F(AV)}$ ⁽¹⁾	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 ² s
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150				°C

Note
⁽¹⁾ 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