

#### **Features**

- UL recognition, file #E313149
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

#### **Typical Applications**

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

#### **Mechanical Data**

• Package: MBS

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

• Terminals: Tin plated leads, solderable per

J-STD-002 and JESD22-B102
• Polarity: As marked on body

#### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	
Device marking code				MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	
Repetitive peak reverse voltage		VRRM	V	100	200	400	600	800	1000	
Average rectified output current @60Hz sine wave, R-load, Ta=40°C	On alumina substrate			0.8						
	On glass-epoxi substrate	l <sub>O</sub>	Α	0.5						
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, Tj=25℃		IFSM	Α	30						
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode		l²t	A <sup>2</sup> s	3.7						
Storage temperature		T <sub>stg</sub>	$^{\circ}$ C	-55 ~+150						
Junction temperature		Tj	$^{\circ}\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	-55 ~+150						

## **■Electrical Characteristics** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=0.4A	1.00					
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	μΑ	V <sub>RM</sub> =V <sub>RRM</sub>	5					

# **MB1S THRU MB10S**

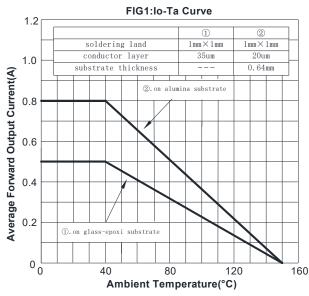
## ■Thermal Characteristics (Ta=25°C Unless otherwise specified)

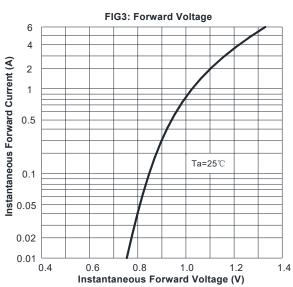
PARAMETER		SYMBOL	UNIT	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S
	Between junction and ambient, On alumina substrate	R <sub>0</sub> J-A		76.0					
Thermal Resistance	· · · · · · · · · · · · · · · · · · ·		°C/W	134.0					
Between junction and lead		RθJ-L				20	0.0		

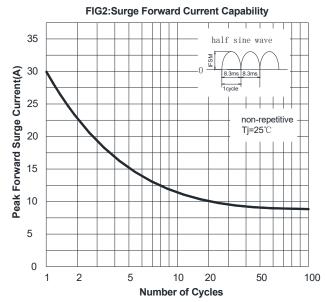
**■**Ordering Information (Example)

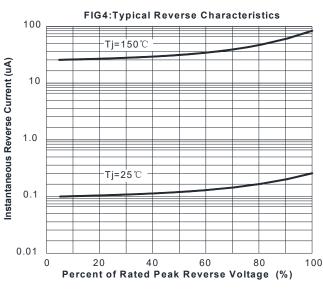
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MB1S-MB10S	F1	Approximate 0.12	2500	5000	40000	13' reel
MB1S-MB10S	F2	Approximate 0.12	3000	6000	48000	13' reel

## ■ Characteristics(Typical)



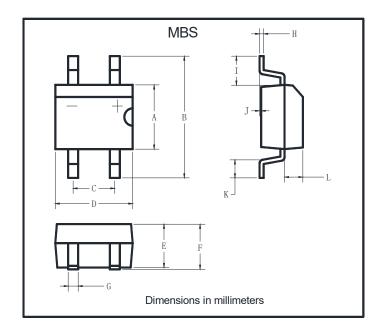






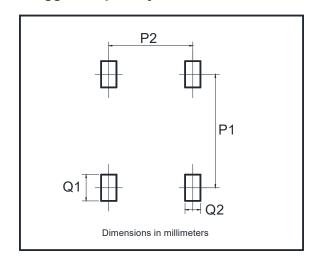
# MB1S THRU MB10S

#### **■ Outline Dimensions**



MBS						
Dim	Min	Max				
Α	3.60	4.00				
В	7.00	Max				
С	2.20	2.60				
D	4.50	4.90				
Е	2.30	2.70				
F	3.00 Max					
G	0.56	0.84				
Н	0.15	0.35				
I	1.10	2.12				
J	0.20 Max					
K	0.70	1.10				
L	0.95	1.53				

# ■ Suggested pad layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1 20



## **MB1S THRU MB10S**

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