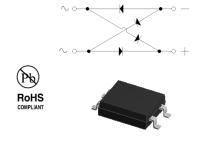


Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers
Reverse Voltage 200~1000V Output Current 1.2

#### **Features**

- · Glass passivated Fast Recovery bridge rectifiers
- · Ideal for automated placement
- · Low forward voltage drop
- · Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, Max Height 1.30mm



**LPMB** 

### **Typical Applications**

For use of general purpose AC to DC bridge rectification in power supply, charger, office appliance, home appliance and telecome device.

Maximum Ratings (TA = 25 °C unless otherwise noted)								
Parameter	Symbol	LMR02A	LMR04A	LMR06A	LMR08A	LMR10A	Unit	
Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	1000	V	
Maximum RMS voltage	VRMS	140	280	420	560	700	V	
Maximum DC blocking voltage	VDC	200	400	600	800	1000	V	
Maximum average output rectified current	Io(A\/)	0.6 (1)					Α	
	lo(AV)	1.2 (2)						
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	40					А	
Rating for fusing(t<8.3ms)	l <sup>2</sup> t	6.5					A <sup>2</sup> sec	
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150 °C					°C	

Electrical Characteristics (TA = 25 °C unless otherwise noted)								
Parameter	Test Conditions	Symbol	LMR02A	LMR04A	LMR06A	LMR08A	LMR10A	Unit
Maximum instantaneous forward voltage	IF=0.6 A, TA=25℃	V <sub>F</sub>	1.3				Volts	
Maximum DC reverse current at rated DC blocking voltage	TA=25℃ TA=125℃	I <sub>R</sub>	5 100					μΑ
Typical reverse recovery time	I <sub>F</sub> =0.3A,I <sub>R</sub> =1. ΛΛ I <sub>rr</sub> =0.25A	t <sub>rr</sub>	150		250	500		nS
Typical junction capacitance	4.0 V, 1 MHz	CJ	18				pF	

Thermal Characteristics								
Parameter	Symbol	LMR02A	LMR04A	LMR06A	LMR08A	LMR10A	Unit	
Typical thermal resistance	$R_{\theta JA}^{(1)}$	60						
	R <sub>0JA</sub> <sup>(2)</sup>	50					°C/W	
	$R_{\theta JC}^{(1)}$	20						

Notes: 1. On glass epoxy PCB, mounted on 1.3\*1.3mm solder pads

2. On 20\*20mm aluminum substrate PCB with 1.3\*1.3mm solder pads

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# Ratings and Characteristics Curves

 $(TA = 25^{\circ}C \text{ unless otherwise noted})$ 

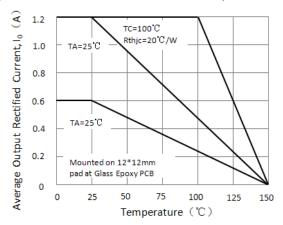


Figure 1. Output Rectifier Current Derating Curve

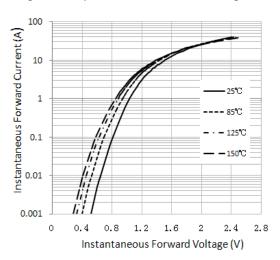


Figure 3. Typical Forward Characteristics

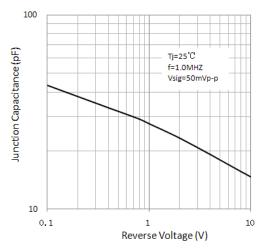


Figure 5. Typical Junction Capacitance

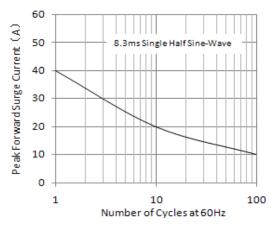


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

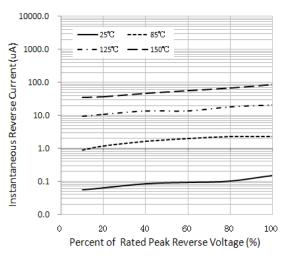


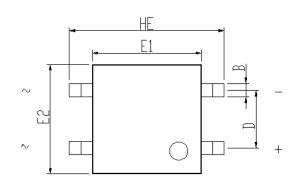
Figure 4. Typical Reverse Characteristics

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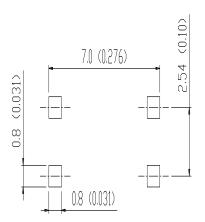
# **Package Outline Dimensions**



DIM	Unit:	mm	Unit: inch		
	MIN	MAX	MIN	MAX	
Α	1.2	1.35	0.047	0.053	
A1	0	0.1	0.000	0.004	
В	0.5	0.75	0.020	0.030	
С	0.1	0.25	0.004	0.010	
D	2.54	typ.	0.10 typ.		
E1	4.7	4.9	0.185	0.193	
E2	4.7	4.9	0.185	0.193	
L	0.4	0.7	0.016	0.028	
HE	6.65	6.95	0.262	0.274	



#### Mounting pad layout in mm(inch)

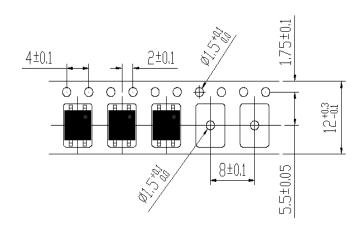


#### **Packing Information**

#### Packing quantities:

4000 pcs/Reel, 15 Reels/Box; 12mm Tape, 13" Reel

**Tape & Reel Specification** 





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