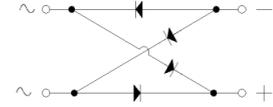


## Features

- 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 telecom device.

### Maximum Ratings (TA = 25 °C unless otherwise noted)

| Parameter  | Symbol           | LMR02C              | LMR04C | LMR06C | LMR08C | LMR10C | 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(AV)           | 0.75 <sup>(1)</sup> |        |        |        |        | A                  |
|  |                  | 1.5 <sup>(2)</sup>  |        |        |        |        |                    |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | IFSM             | 50                  |        |        |        |        | A                  |
| Rating for fusing(t<8.3ms)   | I <sup>2</sup> t | 10.0                |        |        |        |        | A <sup>2</sup> sec |
| Operating junction and storage temperature range                                   | TJ, TSTG         | - 55 to + 150       |        |        |        |        | °C                 |

### Electrical Characteristics (TA = 25 °C unless otherwise noted)

| Parameter   | Test Conditions  | Symbol          | LMR02C | LMR04C | LMR06C | LMR08C | LMR10C | Unit  |
|---|--|-----------------|--------|--------|--------|--------|--------|-------|
| Maximum instantaneous forward voltage                   | IF=0.75A, TA=25°C  | V <sub>F</sub>  | 1.3    |        |        |        |        | Volts |
| Maximum DC reverse current at rated DC blocking voltage | TA=25°C  | I <sub>R</sub>  | 5      |        |        |        |        | µA    |
|   | TA=125°C   |                 | 100    |        |        |        |        |       |
| Typical reverse recovery time                           | I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A | t <sub>rr</sub> | 150    |        | 250    |        | 500    | nS    |
| Typical junction capacitance                            | 4.0 V, 1 MHz   | C <sub>J</sub>  | 20     |        |        |        |        | pF    |

### Thermal Characteristics

| Parameter                  | Symbol                          | LMR02C | LMR04C | LMR06C | LMR08C | LMR10C | Unit |
|----------------------------|---------------------------------|--------|--------|--------|--------|--------|------|
| Typical thermal resistance | R <sub>θJA</sub> <sup>(1)</sup> | 60     |        |        |        |        | °C/W |
|                            | R <sub>θJA</sub> <sup>(2)</sup> | 50     |        |        |        |        |      |
|                            | R <sub>θJC</sub> <sup>(1)</sup> | 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



# LMR02C thru LMR10C

Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers  
 Reverse Voltage 200~1000V Output Current 1.5A

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

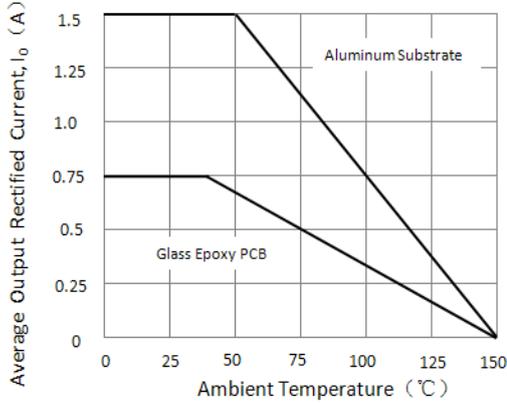


Figure 1. Output Rectifier Current Derating Curve

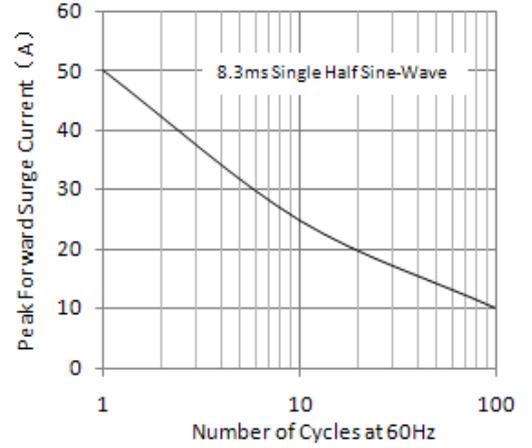


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

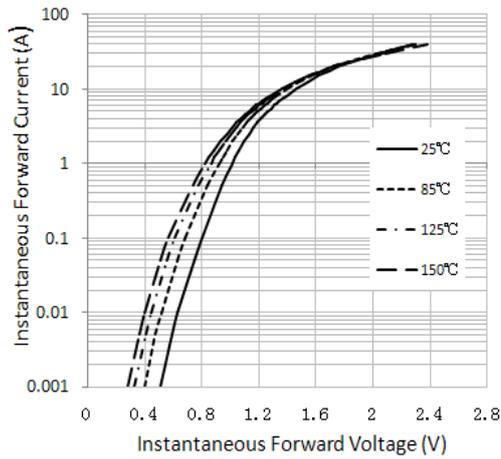


Figure 3. Typical Forward Characteristics

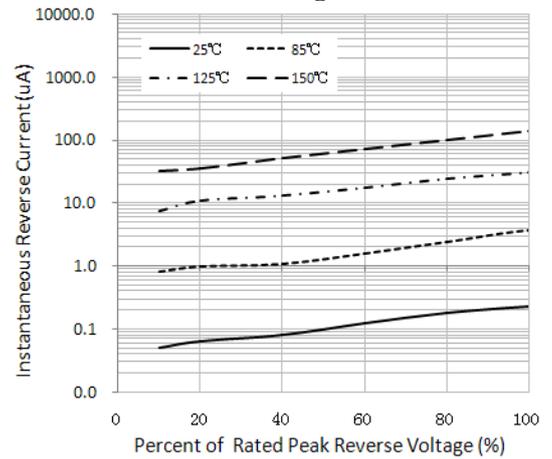


Figure 4. Typical Reverse Characteristics

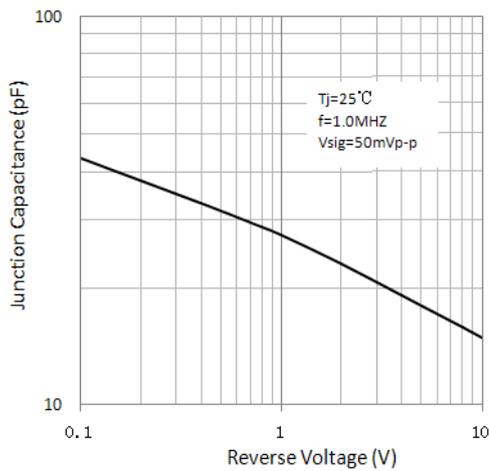
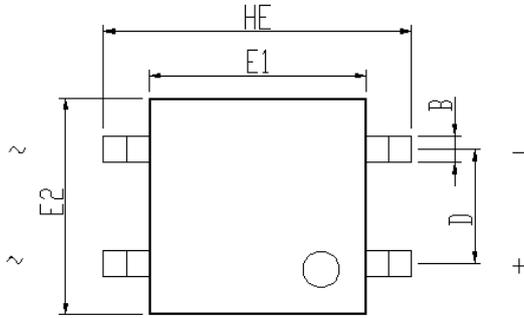


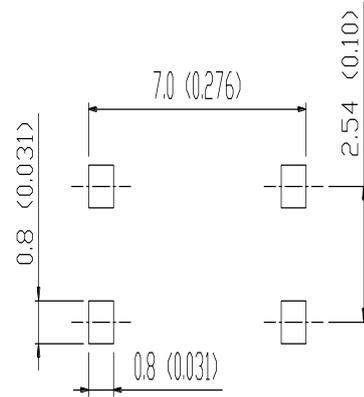
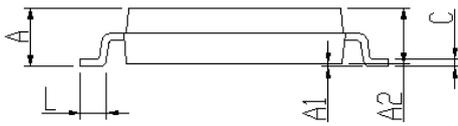
Figure 5. Typical Junction Capacitance

## Package Outline Dimensions



| DIM | Unit: mm  |      | Unit: inch |       |
|-----|-----------|------|------------|-------|
|     | MIN       | MAX  | MIN        | MAX   |
| A   | 1.2       | 1.35 | 0.047      | 0.053 |
| A1  | 0         | 0.1  | 0.000      | 0.004 |
| B   | 0.5       | 0.75 | 0.020      | 0.030 |
| C   | 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)

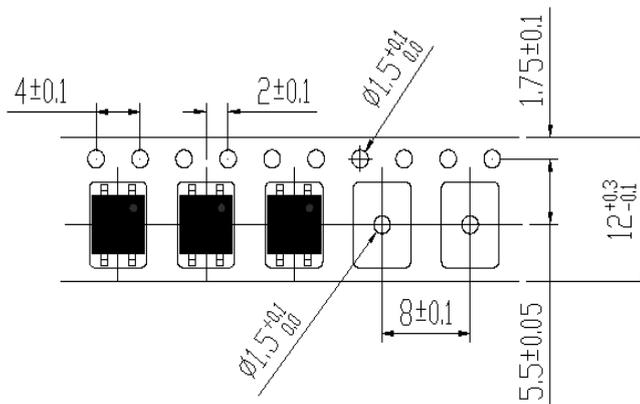


## Packing Information

### Packing quantities:

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

### Tape & Reel Specification





# LMR02C thru LMR10C

Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers  
Reverse Voltage 200~1000V Output Current 1.5A

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