



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## WBFBP-06C Plastic-Encapsulate Diode

### FMMBD4448HSDW

SURFACE MOUNT SWITCHING DIODE ARRAYS

#### DESCRIPTION

Silicon epitaxial planar  
Switching Diode

#### FEATURES

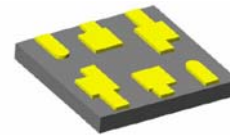
- Ultra-Small Surface Mount Package
- Fast Switching Speed
- High Conductance

#### APPLICATION

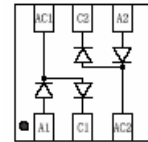
For General Purpose Switching Applications, rectifiers  
For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM,  
DVD-ROM, Note book PC, etc.)

#### WBFBP-06C

(2×2×0.5)  
unit: mm



1



FMMBD4448HSDW  
Marking:KAB

#### Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25

| Parameter                                                   | Symbol              | Limits      | Unit |
|-------------------------------------------------------------|---------------------|-------------|------|
| Non-Repetitive Peak reverse voltage                         | V <sub>RM</sub>     | 100         | V    |
| Peak Repetitive peak reverse voltage                        | V <sub>RRM</sub>    | 80          | V    |
| Working Peak Reverse Voltage                                | V <sub>RWM</sub>    |             |      |
| DC Blocking Voltage                                         | V <sub>R</sub>      |             |      |
| RMS Reverse Voltage                                         | V <sub>R(RMS)</sub> | 57          | V    |
| Forward Continuous Current                                  | I <sub>FM</sub>     | 500         | mA   |
| Average Rectified Output Current                            | I <sub>O</sub>      | 250         | mA   |
| Non-Repetitive Peak forward surge current @=1.0μs<br>@=1.0s | I <sub>FSM</sub>    | 4.0<br>2.0  | A    |
| Power Dissipation                                           | P <sub>d</sub>      | 150         | mW   |
| Thermal Resistance Junction to Ambient                      | R <sub>θJA</sub>    | 625         | °C/W |
| Junction temperature                                        | T <sub>J</sub>      | 150         | °C   |
| Storage temperature range                                   | T <sub>STG</sub>    | -65 to +150 | °C   |

#### Electrical Ratings @T<sub>A</sub>=25°C

| Parameter                     | Symbol          | Min. | Typ. | Max.  | Unit | Conditions                             |
|-------------------------------|-----------------|------|------|-------|------|----------------------------------------|
| Reverse Breakdown Voltage     | V <sub>R</sub>  | 80   |      |       | V    | I <sub>R</sub> =100 μ A                |
| Forward voltage               | V <sub>F1</sub> | 0.62 |      | 0.72  | V    | I <sub>F</sub> =5mA                    |
|                               | V <sub>F2</sub> |      |      | 0.855 | V    | I <sub>F</sub> =10mA                   |
|                               | V <sub>F3</sub> |      |      | 1.0   | V    | I <sub>F</sub> =100mA                  |
|                               | V <sub>F4</sub> |      |      | 1.25  | V    | I <sub>F</sub> =150mA                  |
| Reverse current               | I <sub>R1</sub> |      |      | 0.1   | μA   | V <sub>R</sub> =70V                    |
|                               | I <sub>R2</sub> |      |      | 25    | nA   | V <sub>R</sub> =20V                    |
| Capacitance between terminals | C <sub>T</sub>  |      |      | 3.5   | pF   | V <sub>R</sub> =6V,f=1MHz              |
| Reverse Recovery Time         | t <sub>rr</sub> |      |      | 4     | ns   | V <sub>R</sub> =6V,I <sub>F</sub> =5mA |

## Typical Characteristics

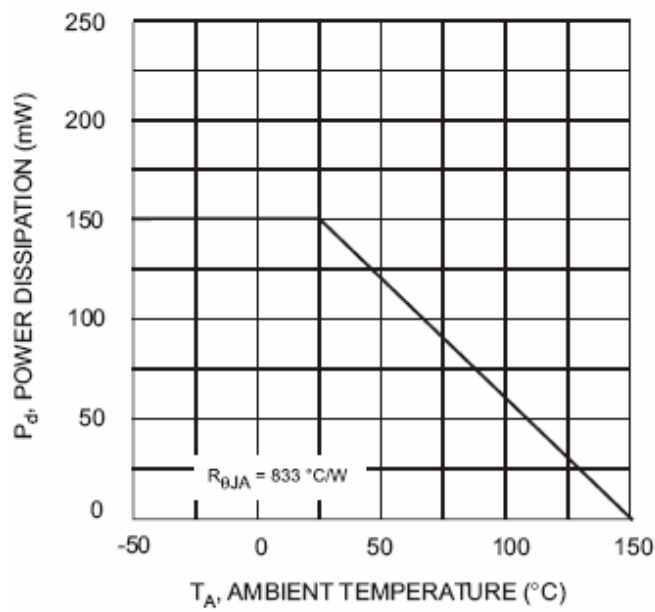


Fig. 1, Derating Curve - Total

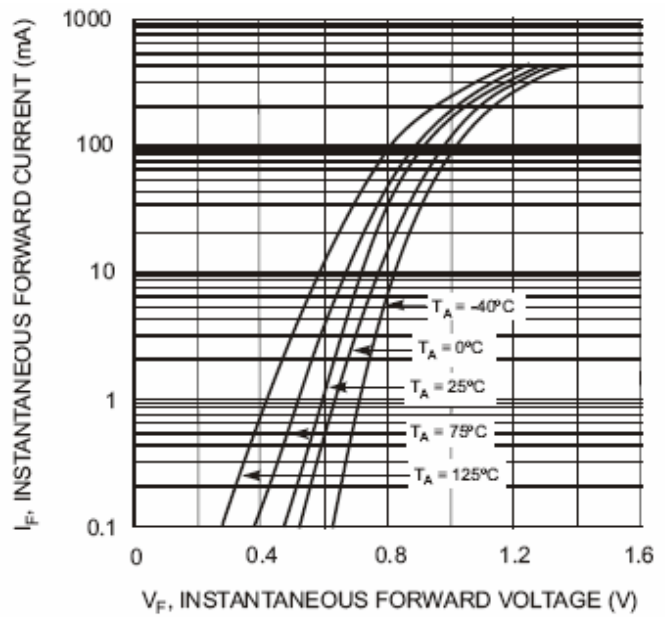


Fig. 2 Typical Forward Characteristics

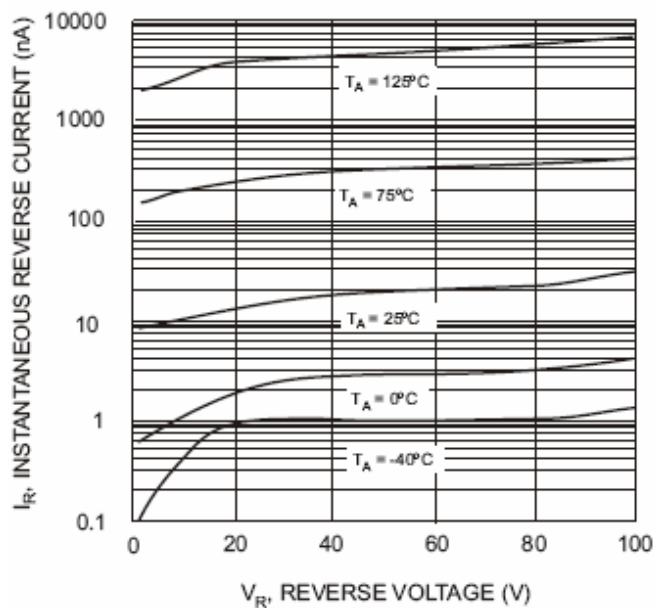


Fig. 3 Typical Reverse Characteristics

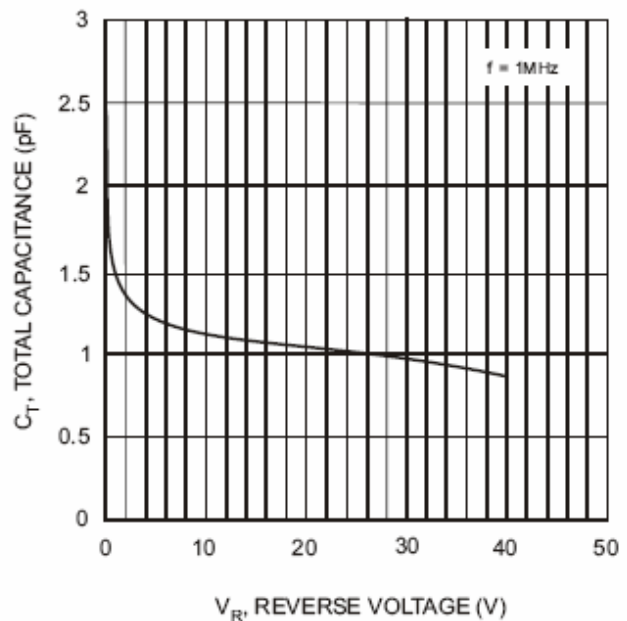
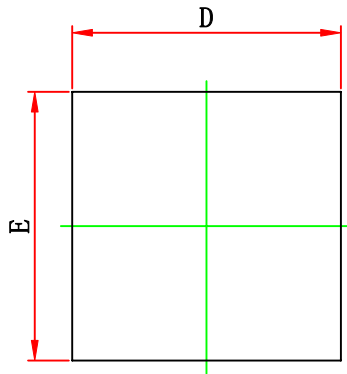


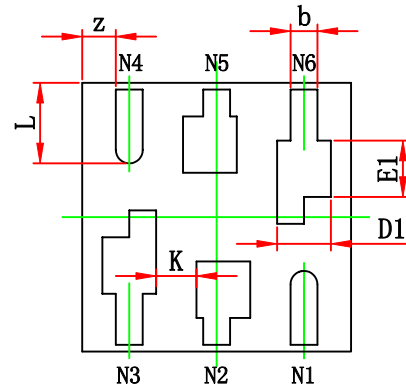
Fig. 4 Typical Capacitance vs. Reverse Voltage



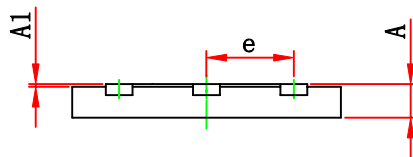
## WBFBP-06C(2×2×0.5) PACKAGE OUTLINE DIMENSIONS



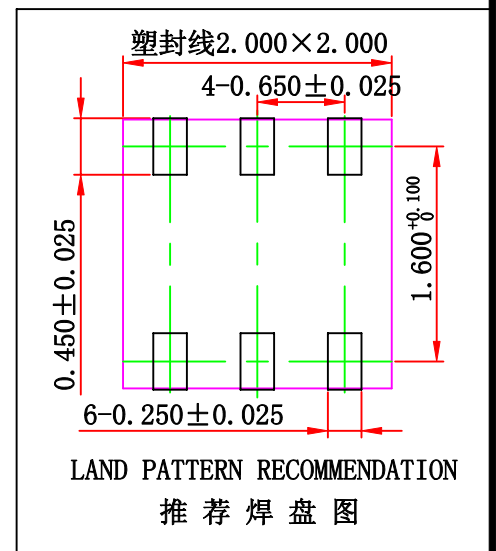
TOP VIEW



BOTTOM VIEW

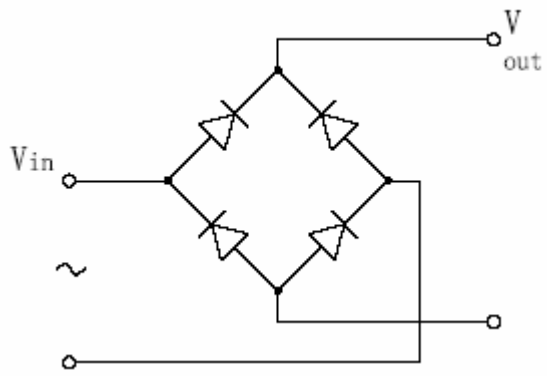


SIDE VIEW



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | 0.450                     | 0.550 | 0.018                | 0.022 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| b      | 0.150                     | 0.250 | 0.006                | 0.010 |
| D      | 1.900                     | 2.100 | 0.075                | 0.083 |
| E      | 1.900                     | 2.100 | 0.075                | 0.083 |
| D1     | 0.420 REF.                |       | 0.017 REF.           |       |
| E1     | 0.420 REF.                |       | 0.017 REF.           |       |
| e      | 0.650 TYP.                |       | 0.026 TYP.           |       |
| L      | 0.600 REF.                |       | 0.024 REF.           |       |
| k      | 0.300 REF.                |       | 0.012 REF.           |       |
| z      | 0.500 REF.                |       | 0.020 REF.           |       |

## APPLICATION CIRCUITS



Bridge rectifiers

This datasheet has been download from:

[www.cj-elec.com](http://www.cj-elec.com)

Datasheets for electronics components