



WBFBP-06C Plastic-Encapsulate Diode

FMMBD4448HAQW

SURFACE MOUNT SWITCHING DIODE ARRAYS

DESCRIPTION

Silicon epitaxial planar
Switching Diode

FEATURES

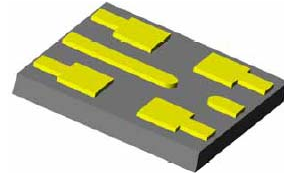
- Ultra-Small Surface Mount Package
- Fast Switching Speed
- High Conductance

APPLICATION

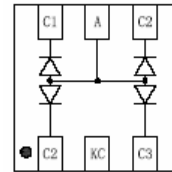
For General Purpose Switching Applications, rectifiers
For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM,
DVD-ROM, Note book PC, etc.)

WBFBP-06C

(2×2×0.5)
unit: mm



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FMMBD4448HAQW

Marking:KA5

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25

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

Electrical Ratings @T_A=25°C

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

Typical Characteristics

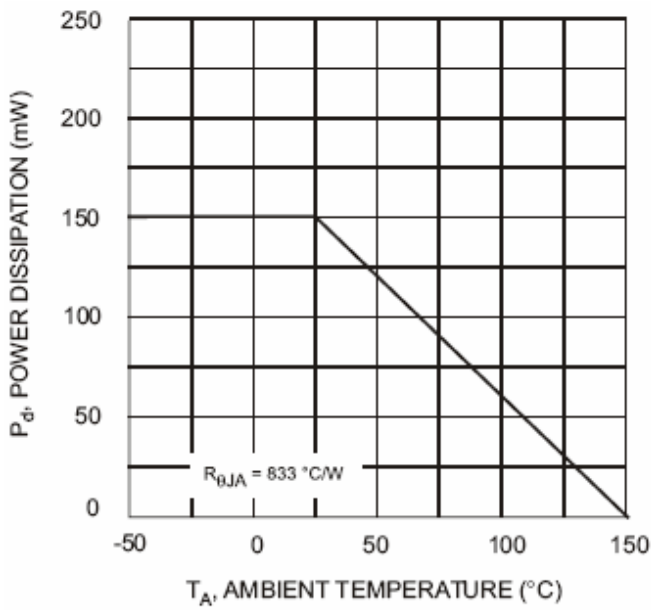


Fig. 1, Derating Curve - Total

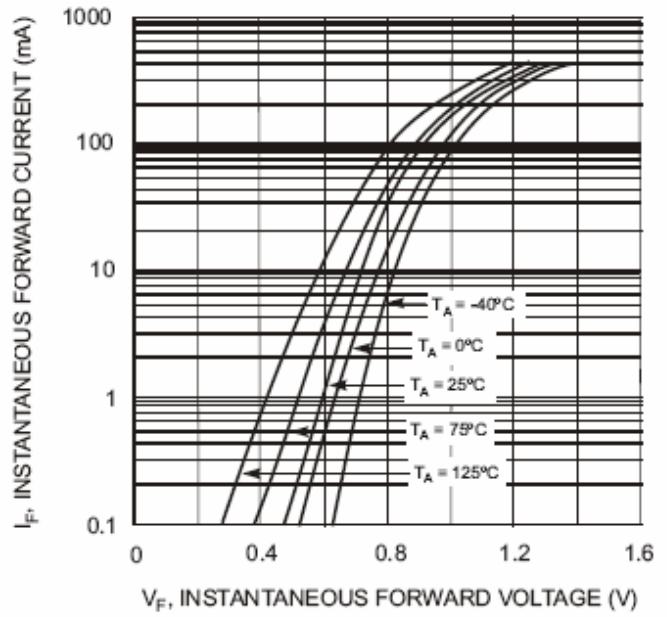


Fig. 2 Typical Forward Characteristics

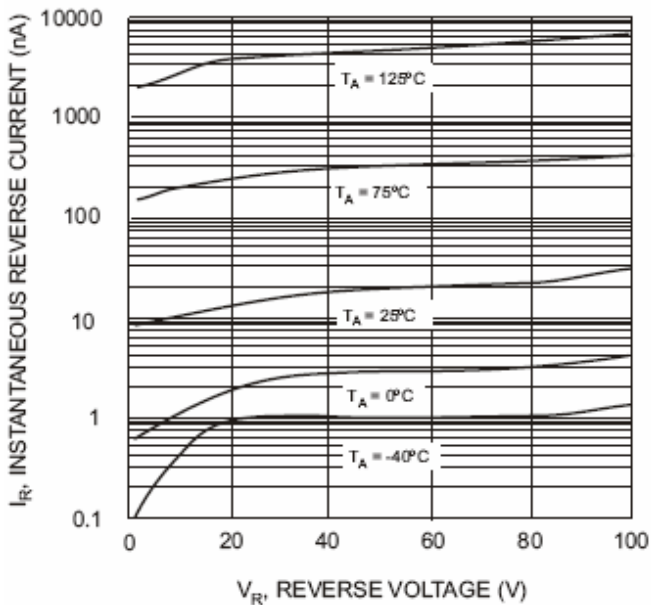


Fig. 3 Typical Reverse Characteristics

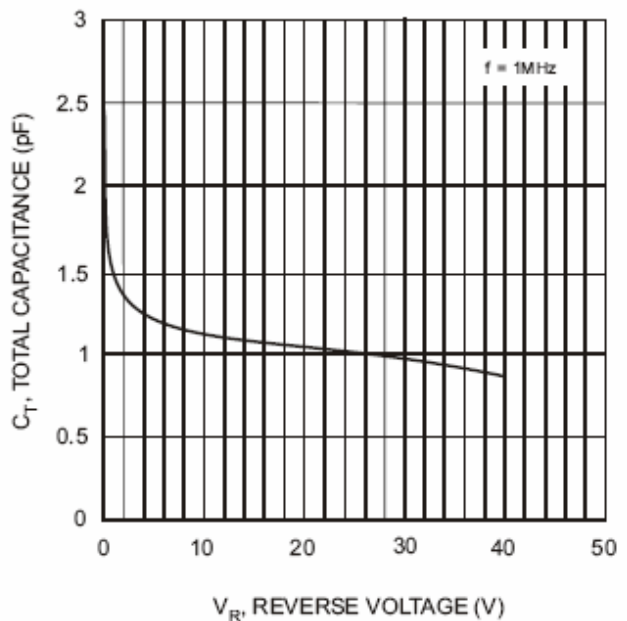
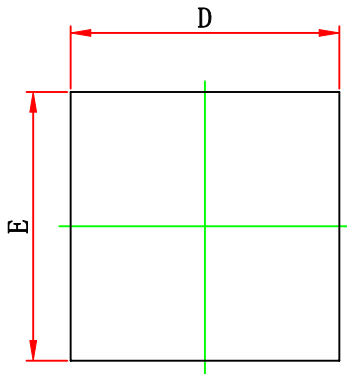


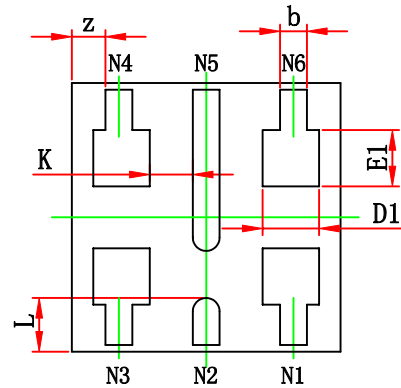
Fig. 4 Typical Capacitance vs. Reverse Voltage



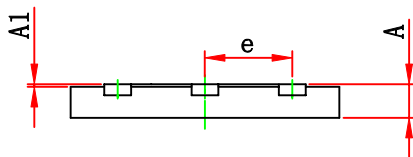
WBFBP-06C(2×2×0.5) PACKAGE OUTLINE DIMENSIONS



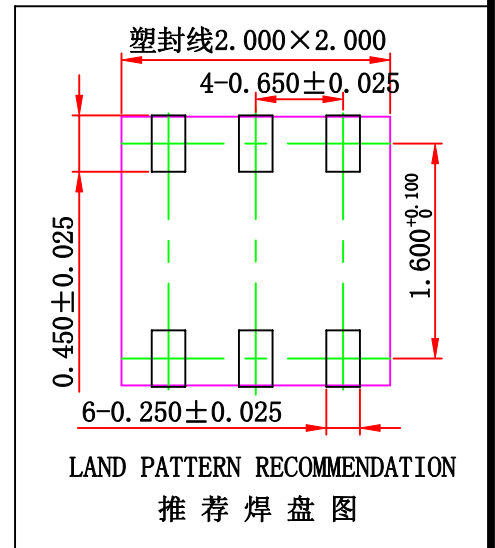
TOP VIEW



BOTTOM VIEW

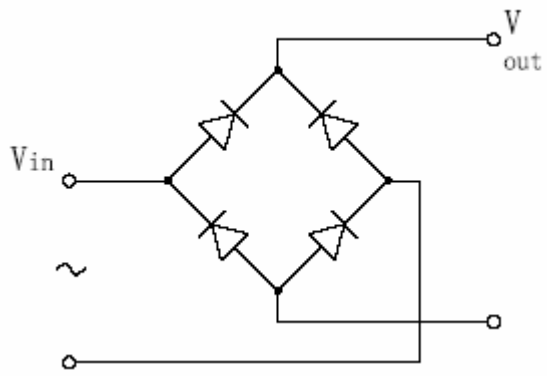


SIDE VIEW



| 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 | 0.400 REF. | | 0.016 REF. | |
| k | 0.300 REF. | | 0.012 REF. | |
| z | 0.500 REF. | | 0.020 REF. | |

APPLICATION CIRCUITS



Bridge rectifiers