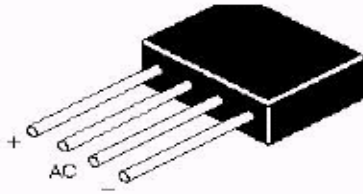


**SINGLE PHASE SILICON BRIDGE RECTIFIER**

**KBP2005 - KBP210**



**KBP  
PLASTIC PACKAGE**

**Marking: 2KBPXXM  
CDIL YYWW  
YYWW-Date Code**

Ratings at  $T_a=25^\circ\text{C}$  Ambient Temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

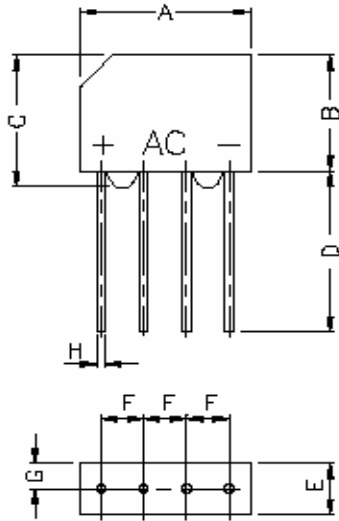
| DESCRIPTION                                                                                               | SYMBOL          | KBP          | KBP | KBP | KBP | KBP | KBP | KBP  | UNIT                           |
|-----------------------------------------------------------------------------------------------------------|-----------------|--------------|-----|-----|-----|-----|-----|------|--------------------------------|
|                                                                                                           |                 | 2005         | 201 | 202 | 204 | 206 | 208 | 210  |                                |
| Maximum Recurrent Peak Reverse Voltage                                                                    | $V_{RRM}$       | 50           | 100 | 200 | 400 | 600 | 800 | 1000 | V                              |
| Maximum RMS Voltage                                                                                       | $V_{RMS}$       | 35           | 70  | 140 | 280 | 420 | 560 | 700  | V                              |
| Maximum DC Blocking Voltage                                                                               | $V_{DC}$        | 50           | 100 | 200 | 400 | 600 | 800 | 1000 | V                              |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) Lead Length at $T_a=50^\circ\text{C}$         | $I_{F(AV)}$     | 2.0          |     |     |     |     |     |      | A                              |
| Peak Forward Surge Current, 8.3ms single<br>half sine wave superimposed on rated load<br>(JEDEC method)   | $I_{FSM}$       | 60           |     |     |     |     |     |      | A                              |
| Maximum Forward Voltage at 2A at $T_a= 25^\circ\text{C}$                                                  | $V_F$           | 1.1          |     |     |     |     |     |      | V                              |
| Maximum Reverse Current at $T_a=25^\circ\text{C}$<br>at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$ | $I_R$           | 10<br>500    |     |     |     |     |     |      | $\mu\text{A}$<br>$\mu\text{A}$ |
| Typical Junction Capacitance                                                                              | $*C_J$          | 25           |     |     |     |     |     |      | pF                             |
| Typical Thermal Resistance                                                                                | $**R_{th(j-a)}$ | 30           |     |     |     |     |     |      | $^\circ\text{C/W}$             |
| Typical Thermal Resistance                                                                                | $**R_{th(j-L)}$ | 11           |     |     |     |     |     |      | $^\circ\text{C/W}$             |
| Operating and Storage Temperature Range                                                                   | $T_J, T_{stg}$  | - 55 to +125 |     |     |     |     |     |      | $^\circ\text{C}$               |

\*Measured at 1MHz and applied reverse voltage of 4.0 V

\*\*Thermal resistance junction to Ambient and from Junction to lead at 0.375" (9.5mm) lead length PCB mounted

KBP2005\_210Rev\_1 140307E

KBP Plastic Package



| DIM | MIN.  | MAX.  |
|-----|-------|-------|
| A   | 14.22 | 15.24 |
| B   | 10.57 | 11.58 |
| C   | 13.4  | 14.4  |
| D   | 15.2  | —     |
| E   | 4.57  | 5.08  |
| F   | 3.6   | 4.1   |
| G   | —     | 2.67  |
| H   | 0.76  | 0.86  |

All dimensions are in mm

900 Pcs/Bulk Pack

**Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

**Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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