

## KBP2005 THRU KBP 210

Voltage Range 50 to 1000 Volts  
Current 2.0 Amperes

### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Ideal for Printed Circuit Boards
- High Surge Current Capability

### Maximum Ratings

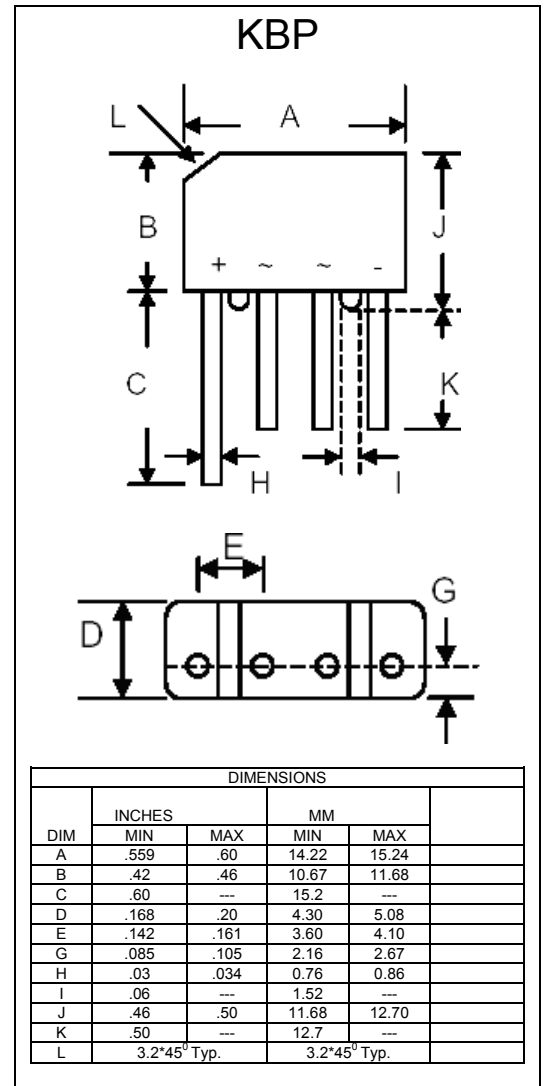
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
KBP2005	50V	35V	50V
KBP201	100V	70V	100V
KBP202	200V	140V	200V
KBP204	400V	280V	400V
KBP206	600V	420V	600V
KBP208	800V	560V	800V
KBP210	1000V	700V	1000V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	2.0A	$T_a = 50^\circ\text{C}$ Note1
Peak Forward Surge Current	$I_{FSM}$	50A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.1V	$I_F = 1.5\text{A}$ per element; $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 0.5mA	$T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$
Typical Junction Capacitance per element	$C_j$	15PF	Measured at 1MHZ, VR=4V(DC)
Typical Thermal Resistance	Rthja	28 K/W	Note2

- Note: 1. Leads maintained at ambient temp. at a distance of 9.5mm from the case  
2. Mounted on PC board with 12mm<sup>2</sup> copper pad



# MASTER INSTRUMENT CORPORATION

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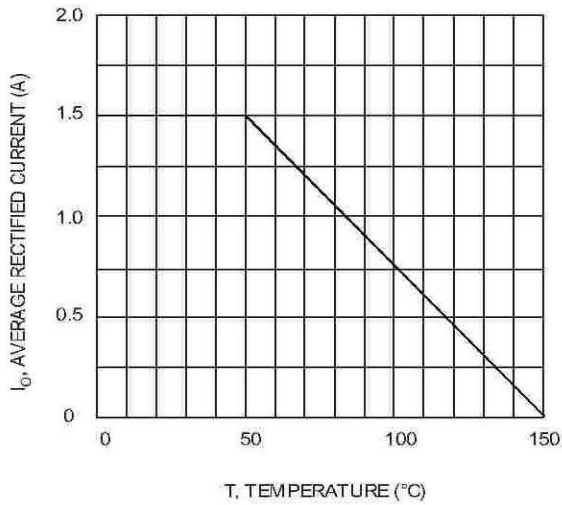


Fig. 1 Forward Current Derating Curve

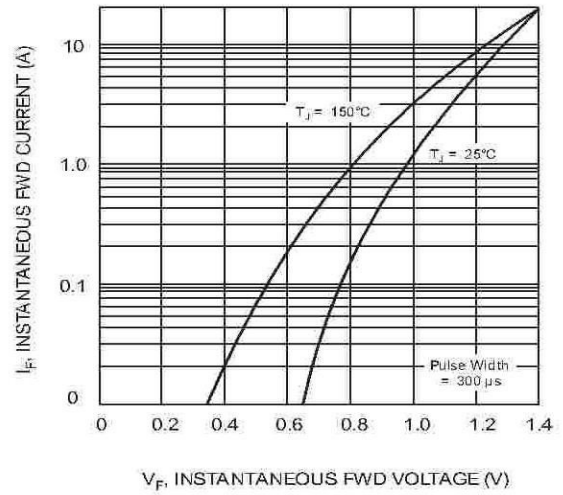


Fig. 2 Typical Fwd Characteristics

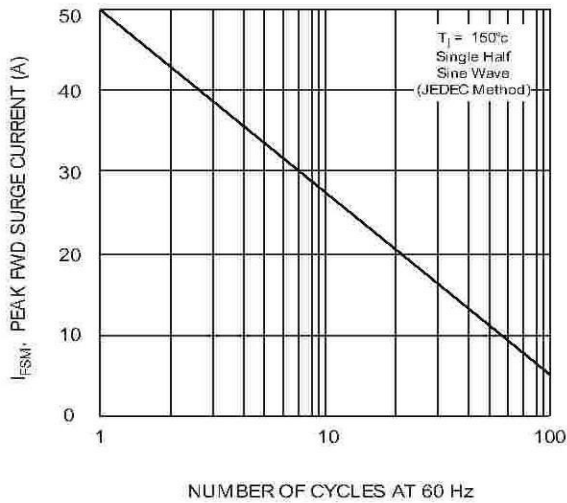


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

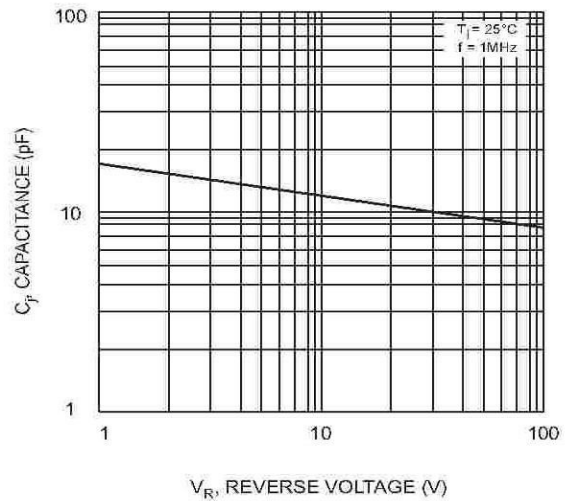


Fig. 4 Typical Junction Capacitance

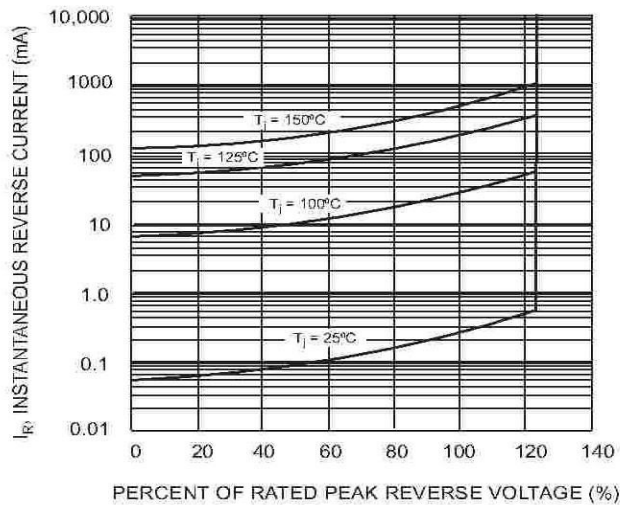


Fig. 5 Typical Reverse Characteristics