



MASTER INSTRUMENT CORPORATION

KBP2005 THRU KBP210

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

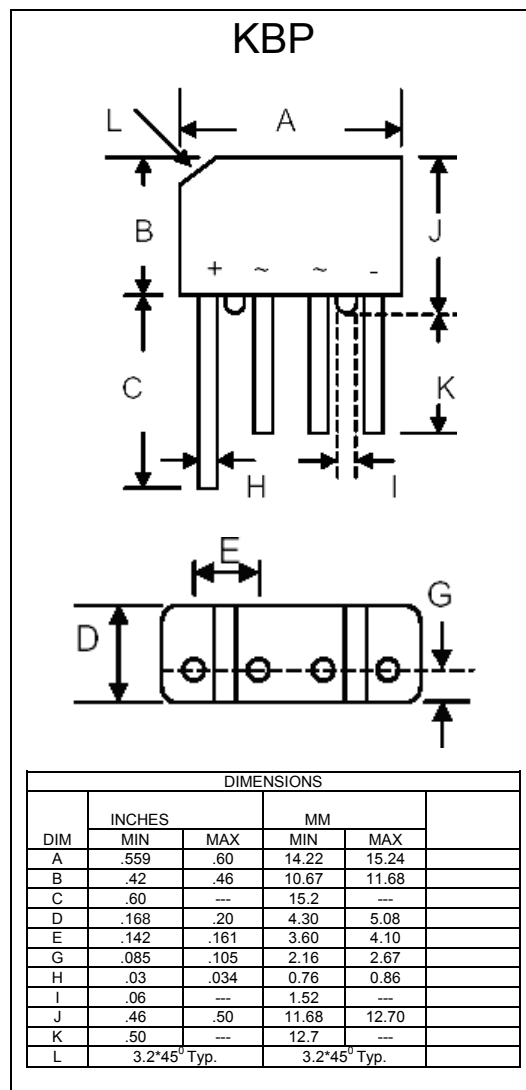
Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
KBP2005	50V	35V	50V
KBP201	100V	70V	100V
KBP202	200V	140V	200V
KBP204	400V	280V	400V
KBP206	600V	420V	600V
KBP208	800V	560V	800V
KBP210	1000V	700V	1000V

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 μA 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	R_{thja}	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 12mm² copper pad



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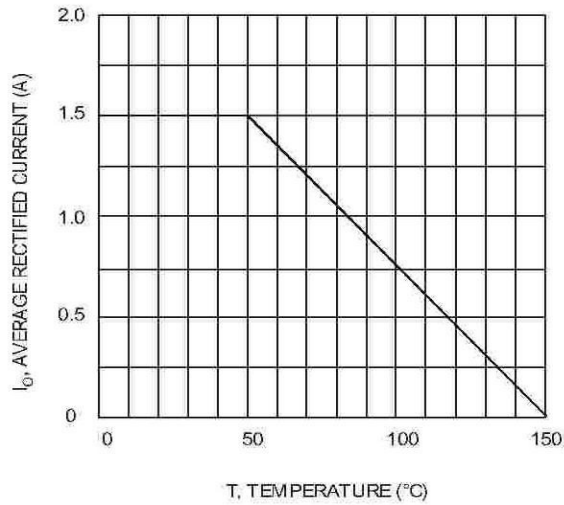


Fig. 1 Forward Current Derating Curve

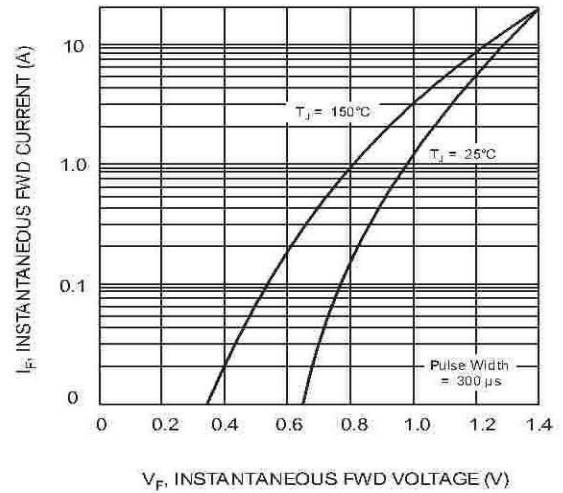


Fig. 2 Typical Fwd Characteristics

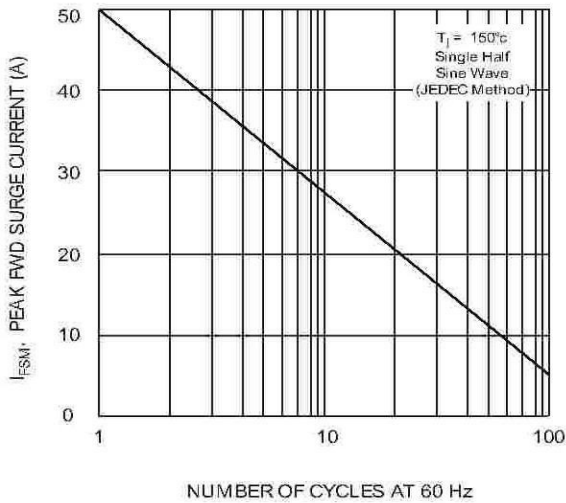


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

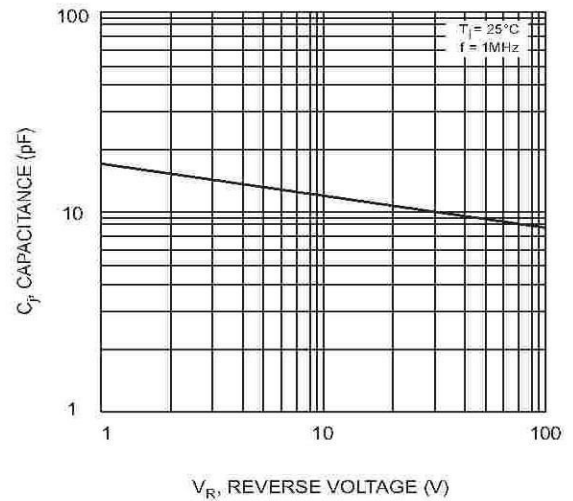


Fig. 4 Typical Junction Capacitance

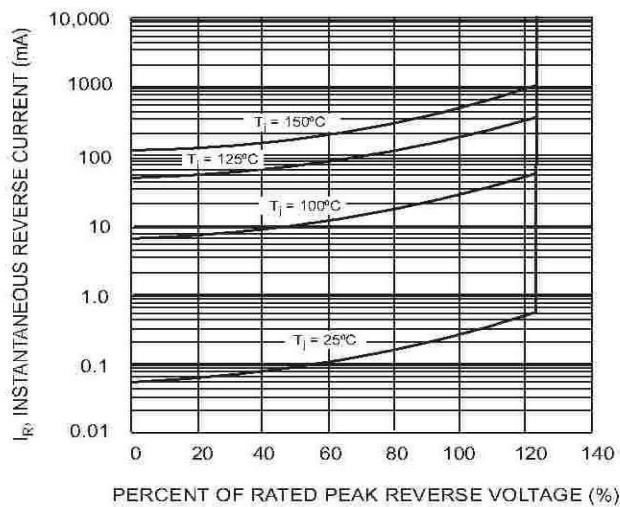


Fig. 5 Typical Reverse Characteristics