

2KBP005-2KBP10M

SINGLE PHASE BRIDGE RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Rating	Symbol	2KBP005M	2KBP01M	2KBP02M	2KBP04M	2KBP06M	2KBP08M	2KBP10M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at $T_A = 50^\circ\text{C}$	$I_{F(AV)}$	2.0							Amps
Peak forward surge current single half-sine wave superimposed on rated load $T_J = 150^\circ\text{C}$	I_{FSM}	60.0							Amps
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	15.0							A^2s
Typical thermal resistance per leg ⁽¹⁾	$R_{\theta JA}$	30.0							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	11.0							
Operating and storage temperature range	T_J, T_{stg}	-55 to +165							$^\circ\text{C}$

Note 1: Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.47 x 0.47" copper pads.

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Characteristic	Symbol	2KBP005M	2KBP01M	2KBP02M	2KBP04M	2KBP06M	2KBP08M	2KBP10M	Units
Maximum instantaneous forward voltage drop per leg at 3.14A	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage per leg $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	5							μA
		500							
Typical junction capacitance ⁽²⁾	C_J	25							pF

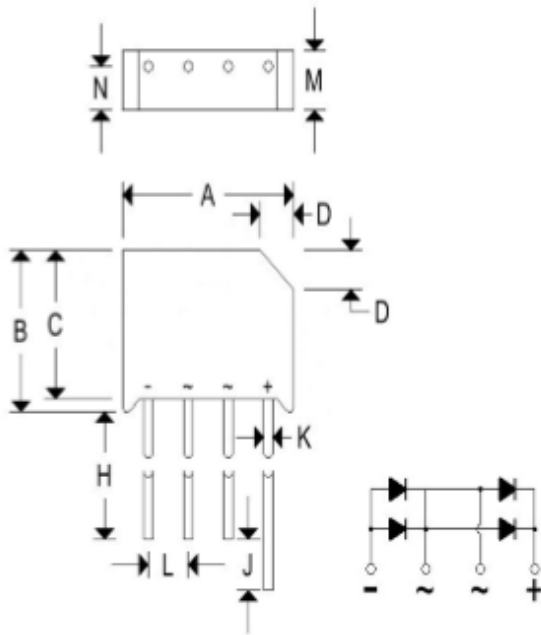
Note 2: Measured at 1.0 MHz and applied reverse voltage of 4.0V.

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MECHANICAL CHARACTERISTICS

Case:	Digi PA
Marking:	Alpha-Numeric
Polarity:	See below



	Digi PA			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.560	0.600	14.224	15.240
B	0.460	0.500	11.684	12.700
C	0.420	0.460	10.668	11.684
D	0.150 TYP		3.810 TYP	
H	0.500	-	12.700	-
J	0.150 TYP		3.810 TYP	
K	0.028	0.034	0.711	0.863
L	0.140	0.160	3.556	4.064
M	0.180	0.200	4.572	5.080
N	0.075	0.115	1.905	2.921

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