

# 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	2KBP 005M	2KBP 01M	2KBP 02M	2KBP 04M	2KBP 06M	2KBP 08M	2KBP 10M	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							$\text{A}^2\text{s}$
Typical thermal resistance per leg <sup>(1)</sup>	$R_{\theta JA}$	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	2KBP 005M	2KBP 01M	2KBP 02M	2KBP 04M	2KBP 06M	2KBP 08M	2KBP 10M	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							$\mu\text{A}$
		500							
Typical junction capacitance <sup>(2)</sup>	$C_J$	25							pF

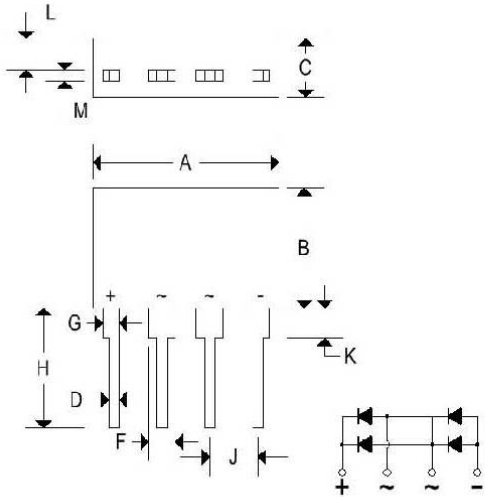
Note 2: Measured at 1.0 MHz and applied reverse voltage of 4.0V.

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### MECHANICAL CHARACTERISTICS

<b>Case:</b>	Digi M
<b>Marking:</b>	Body painted, alpha-numeric
<b>Polarity:</b>	Cathode band



	Digi M			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.580	0.620	14.732	15.748
B	0.360	0.400	9.144	10.160
C	0.185	0.195	4.699	4.953
D	0.025	0.035	0.635	0.889
F	0.080	0.090	2.032	2.286
G	0.040	0.055	1.016	1.397
H	0.390	0.430	9.906	10.922
J	0.145	0.160	3.683	4.064
K	0.080	0.090	2.032	2.286
L	0.090	0.110	2.286	2.794
M	0.025	0.035	0.635	0.889

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