

INTERNATIONAL RECTIFIER



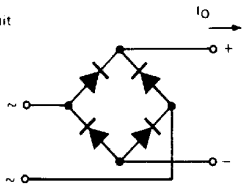
## 2KBP SERIES

### 2A single phase rectifier bridge

#### Maximum Ratings

	2KBP	Units
$I_O$	2.0	A
$I_{FSM}$	50Hz	60
	60Hz	63
$I^2t$	50Hz	18
	60Hz	16
$V_{RRM}$	50 to 1000	V

Circuit



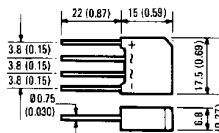
#### Description

A 2A single phase encapsulated bridge rectifier consisting of four single diodes connected as a full bridge. They are intended for general applications in industrial and consumer equipment.

#### Features

- Suitable for printed circuit board mounting
- Compact construction
- High surge current capability

#### Outline



All dimensions in millimetres (inches)

## Electrical specifications

		2KBP	Units	Conditions
$I_O$	Maximum DC output current	2.0	A	$T_{amb} = 50^\circ\text{C}$ , Resistive or inductive load
		1.8	A	$T_{amb} = 50^\circ\text{C}$ , Capacitive load
$I_{FSM}$	Maximum peak one cycle, non-repetitive surge current	60	A	$t = 10\text{ms}, 20\text{ms}$
		63	A	$t = 8.3\text{ms}, 16.7\text{ms}$
$I^2t$	Maximum $I^2t$ capability for fusing	18	$\text{A}^2\text{s}$	$t = 10\text{ms}$
		16	$\text{A}^2\text{s}$	$t = 8.3\text{ms}$
		26	$\text{A}^2\text{s}$	$t = 10\text{ms}$
		23	$\text{A}^2\text{s}$	$t = 8.3\text{ms}$
$I^2\sqrt{t}$	Maximum $I^2\sqrt{t}$ capability for fusing	255	$\text{A}^2\sqrt{\text{s}}$	$t = 0.1$ to $10\text{ms}$ , no voltage reapplied
$V_{FM}$	Maximum peak forward voltage per diode	1.0	V	$I_{FM} = 1\text{A}$ , $T_J = 25^\circ\text{C}$
$I_{RM}$	Typical peak reverse leakage current per diode	10	$\mu\text{A}$	$T_J = 25^\circ\text{C}$
		1.0	$\text{mA}$	$T_J = 150^\circ\text{C}$
$f$	Operating frequency range	40 to 1000	Hz	

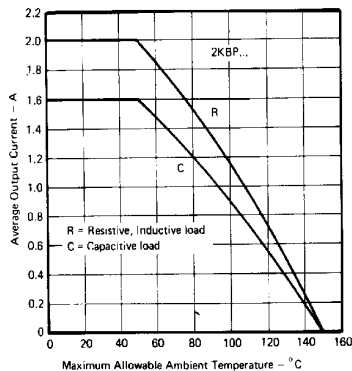
## Thermal and mechanical specifications

		2KBP	Units	Conditions
$T_J$	Operating temperature range	-40 to 150	$^\circ\text{C}$	
$T_{stg}$	Storage temperature range	-40 to 150	$^\circ\text{C}$	
$W$	Approximate weight	4 (0.14)	g (oz)	

## Voltage specifications

Part number	$V_{RRM}$ : Maximum repetitive peak reverse voltage	$V_{RSM}$ : Maximum non-repetitive peak reverse voltage	$V_{RMS}$ : Maximum recommended RMS supply voltage
	V	V	V
2KBP005	50	50	20
2KBP02	200	200	80
2KBP04	400	400	125
2KBP06	600	600	250
2KBP08	800	800	380
2KBP10	1000	1000	500

**Fig. 1 – Ambient Temperature Ratings**



**Fig. 2 – Non-Repetitive Surge Ratings**

