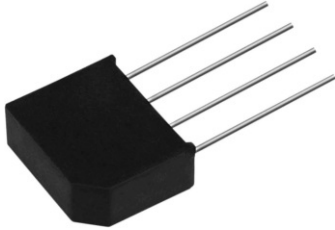


## Single Phase Rectifier Bridge, 2 A



D-44

### FEATURES

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



### DESCRIPTION

A 2 A 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.

### PRODUCT SUMMARY

$I_o$	2 A
$V_{RRM}$	50 to 1000 V

### MAJOR RATINGS AND CHARACTERISTICS

SYMBOL	CHARACTERISTICS	VALUES	UNITS
$I_o$		2.0	A
$I_{FSM}$	50 Hz	60	A
	60 Hz	63	
$I^2t$	50 Hz	18	$A^2s$
	60 Hz	16	
$V_{RRM}$		50 to 1000	V
$T_J$		- 40 to 150	$^{\circ}C$

### ELECTRICAL SPECIFICATIONS

#### VOLTAGE RATINGS

PART NUMBER	$V_{RRM}$ , MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE (V)	$V_{RSM}$ , MAXIMUM NON-REPETITIVE PEAK REVERSE VOLTAGE (V)	$V_{RMS}$ , MAXIMUM RECOMMENDED RMS SUPPLY VOLTAGE (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

FORWARD CONDUCTION						
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS	
Maximum DC output current	$I_O$	$T_A = 50\text{ }^\circ\text{C}$ , resistive or inductive load		2.0	A	
		$T_A = 50\text{ }^\circ\text{C}$ , capacitive load		1.8		
Maximum peak one cycle, non-repetitive surge current	$I_{FSM}$	$t = 10\text{ ms}$ , 20 ms	Following any rated load condition and with rated $V_{RRM}$ reapplied	60	A	
		$t = 8.3\text{ ms}$ , 16.7 ms		63		
Maximum $I^2t$ capability for fusing	$I^2t$	$t = 10\text{ ms}$	100 % $V_{RRM}$ reapplied	Initial $T_J = T_J$ maximum	A <sup>2</sup> s	
		$t = 8.3\text{ ms}$				18
		$t = 10\text{ ms}$	No voltage reapplied			16
		$t = 8.3\text{ ms}$				26
Maximum $I^2\sqrt{t}$ capability for fusing	$I^2\sqrt{t}$	$t = 0.1\text{ to }10\text{ ms}$ , no voltage reapplied		23	A <sup>2</sup> $\sqrt{s}$	
Maximum peak forward voltage per diode	$V_{FM}$	$I_{FM} = 1\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$		255	A <sup>2</sup> $\sqrt{s}$	
Typical peak reverse leakage current per diode	$I_{RM}$	$T_J = 25\text{ }^\circ\text{C}$ , 100 % $V_{RRM}$		1.0	V	
		$T_J = 150\text{ }^\circ\text{C}$ , 100 % $V_{RRM}$		10	$\mu\text{A}$	
Operating frequency range	$f$			1.0	mA	
				40 to 1000	Hz	

THERMAL AND MECHANICAL SPECIFICATIONS			
PARAMETER	SYMBOL	VALUES	UNITS
Operating junction and storage temperature range	$T_J$ , $T_{Stg}$	- 40 to 150	$^\circ\text{C}$
Approximate weight		4	g
		0.14	oz.

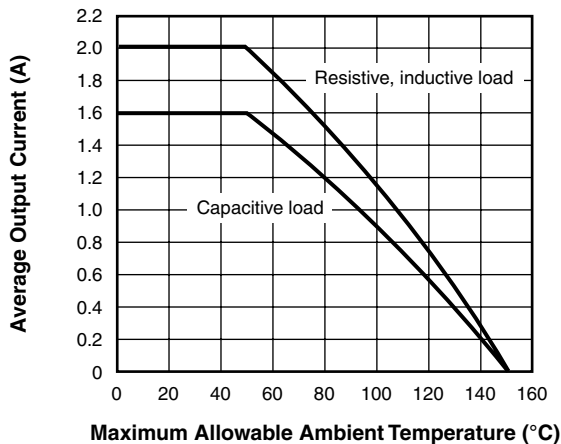


Fig. 1 - Ambient Temperature Ratings

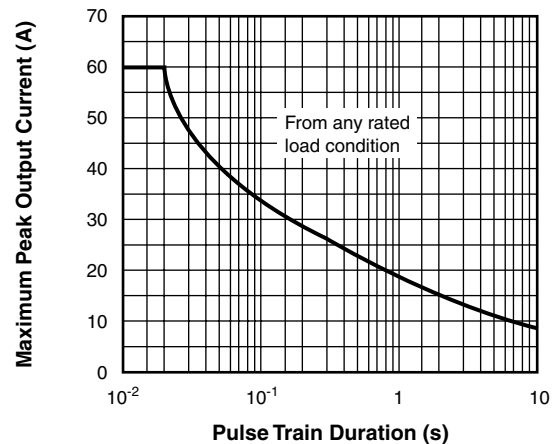
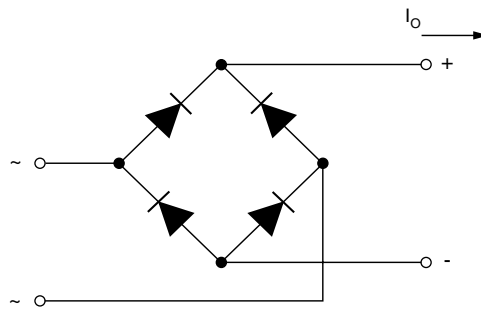


Fig. 2 - Non-Repetitive Surge Ratings

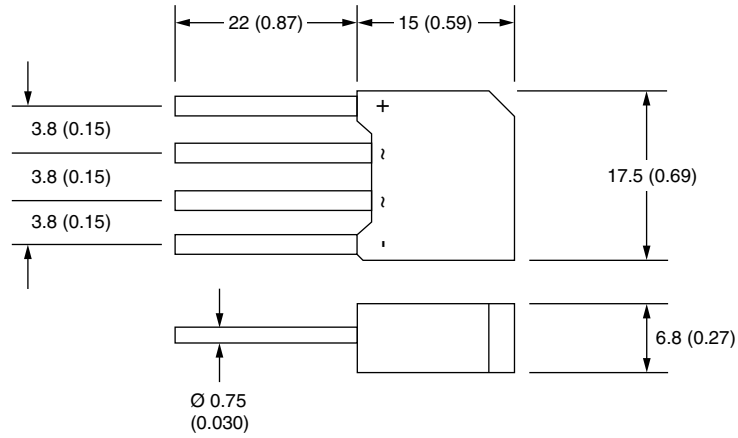
**CIRCUIT CONFIGURATION****LINKS TO RELATED DOCUMENTS**

Dimensions

<http://www.vishay.com/doc?95329>

## D-44

**DIMENSIONS** in millimeters (inches)





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