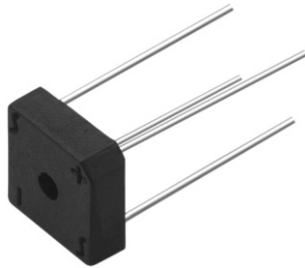


## Single Phase Rectifier Bridge, 8 A



D-72

### FEATURES

- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Fully characterised data
- Wide temperature range
- RoHS compliant



### PRODUCT SUMMARY

$I_{O(av)}$	8.0 A
$V_{RRM}$	50 to 1000 V

### DESCRIPTION

The KBPC series of single phase rectifier bridge consists of four silicon junctions connected as a full bridge. These device are intended for general use in industrial and consumer equipment.

### MAJOR RATINGS AND CHARACTERISTICS

SYMBOL	CHARACTERISTICS	VALUES	UNITS
$I_o$	$T_C = 50\text{ }^\circ\text{C}$ , resistive load	8	A
	$T_C = 50\text{ }^\circ\text{C}$ , capacitive load	6.4	
$I_{FSM}$	50 Hz	125	A
	60 Hz	137	
$I^2t$	50 Hz	110	$\text{A}^2\text{s}$
	60 Hz	100	
$V_{RRM}$	Range	50 to 1000	V
$T_J$		- 55 to 150	$^\circ\text{C}$

### ELECTRICAL SPECIFICATIONS

#### VOLTAGE RATINGS

PART NUMBER	$V_{RRM}$ , MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE	$V_{RSM}$ , MAXIMUM NON-REPETITIVE PEAK REVERSE VOLTAGE
	V	V
KBPC8005	50	80
KBPC801	100	150
KBPC802	200	300
KBPC804	400	500
KBPC806	600	700
KBPC808	800	900
KBPC810	1000	1100

FORWARD CONDUCTION					
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum DC output current	$I_o$	$T_C = 50\text{ }^\circ\text{C}$ , resistive or inductive load		8.0	A
		$T_C = 50\text{ }^\circ\text{C}$ , capacitive load		6.4	
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	125	
		$t = 8.3\text{ ms}$ , 16.7 ms		137	
Maximum $I^2t$ capability for fusing	$I^2t$	$t = 10\text{ ms}$	Initial $T_J = T_J$ maximum 100 % $V_{RRM}$ reapplied	78	$A^2s$
		$t = 8.3\text{ ms}$		71	
		$t = 10\text{ ms}$		110	
		$t = 8.3\text{ ms}$		1000	
Maximum $I^2\sqrt{t}$ capability for fusing	$I^2\sqrt{t}$	$t = 0.1$ to 10 ms, no voltage reapplied		1105	$A^2\sqrt{s}$
Maximum peak forward voltage per diode	$V_{FM}$	$I_{FM} = 3.0\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$		1.0	V
Typical peak reverse leakage per diode	$I_{RM}$	$T_J = 25\text{ }^\circ\text{C}$ , 100 % $V_{RRM}$		10	mA
		$T_J = 150\text{ }^\circ\text{C}$ , 100 % $V_{RRM}$		100	
Operating frequency range	$f$			400 to 1000	Hz
Maximum repetitive peak reverse voltage range	$V_{RRM}$			50 to 1000	V

THERMAL AND MECHANICAL SPECIFICATIONS			
PARAMETER	SYMBOL	VALUES	UNITS
Operating and storage temperature range	$T_J, T_{Stg}$	- 55 to 150	$^\circ\text{C}$
Thermal resistance, junction to case	$R_{thJC}$	6	K/W
Approximate weight		6	g
		0.21	oz.

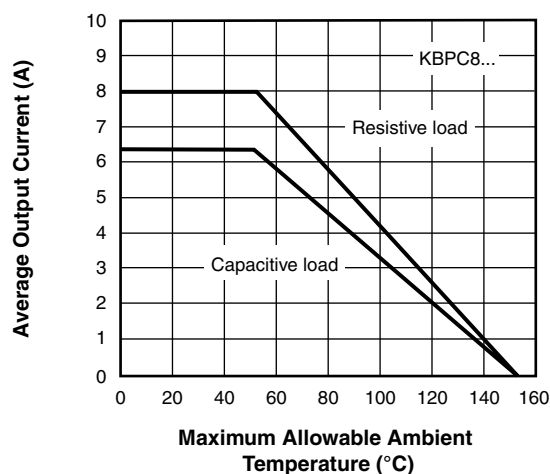


Fig. 1 - Current Ratings

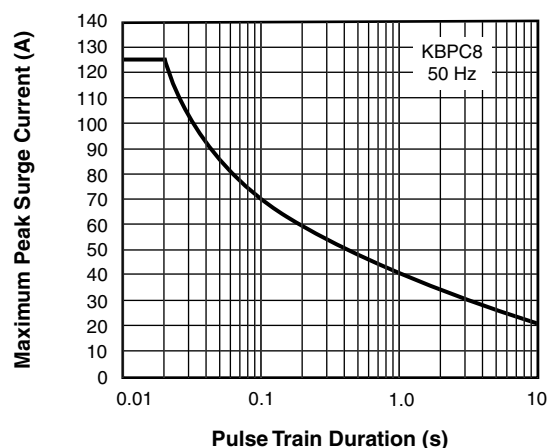
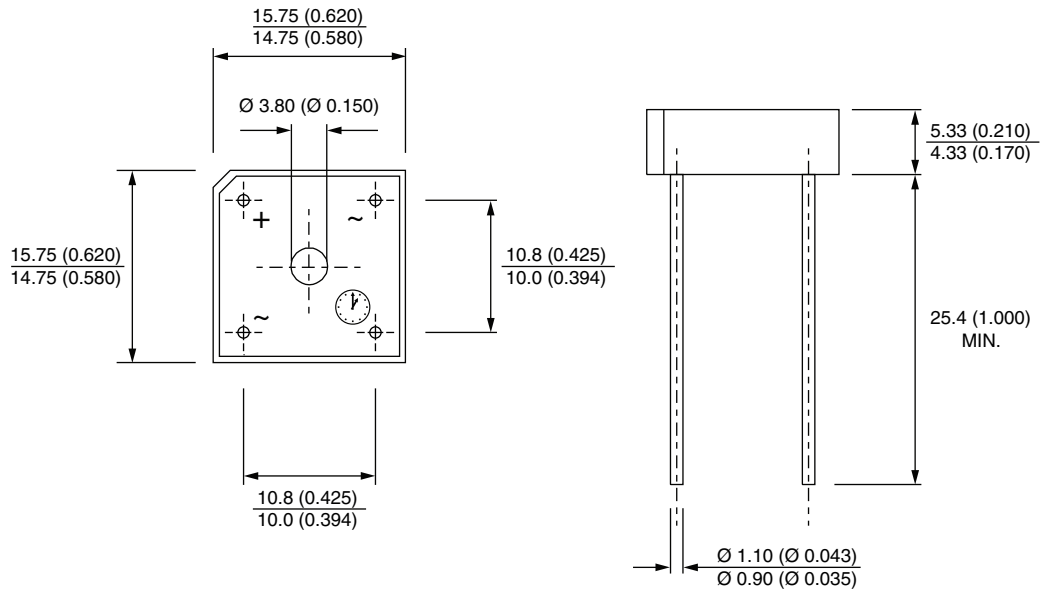


Fig. 2 - Non-Repetitive Surge Ratings

LINKS TO RELATED DOCUMENTS	
Dimensions	<a href="http://www.vishay.com/doc?95250">http://www.vishay.com/doc?95250</a>

## D-72

**DIMENSIONS** in millimeters (inches)





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