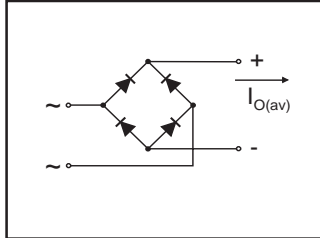


### 6A, 8A Single Phase Rectifier Bridge

- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Fully characterised data
- Wide temperature range
- Lead-Free ("PbF" suffix)



**$I_{O(av)} = 6A, 8A$**   
 **$V_{RRM}$  range**  
**50 to 1000V**

### Description

The KBPC6PbF, KBPC8PbF Series of Single Phase Rectifier Bridges consists of four silicon junctions connected as a full bridge. These devices are intended for general use in industrial and consumer equipment.



### Electrical Specification

		KBPC6	KBPC8	Units	Conditions
$I_O$	Maximum DC output current	6	8.0	A	$T_C = 50^\circ\text{C}$ , Resistive or inductive load
		4.7	6.4	A	$T_C = 50^\circ\text{C}$ , Capacitive load
$I_{FSM}$	Maximum peak one cycle, non-repetitive surge current	125	125	A	$t = 10\text{ms}, 20\text{ms}$
		137	137	A	$t = 8.3\text{ms}, 16.7\text{ms}$
$I^2t$	Maximum $I^2t$ capability for fusing	78	78	$\text{A}^2\text{s}$	$t = 10\text{ms}$
		71	71	$\text{A}^2\text{s}$	$t = 8.3\text{ms}$
		110	110	$\text{A}^2\text{s}$	$t = 10\text{ms}$
		100	100	$\text{A}^2\text{s}$	$t = 8.3\text{ms}$
$I^2vt$	Maximum $I^2vt$ capability for fusing	1105	1105	$\text{A}^2\text{Vs}$	$t = 0.1$ to $10\text{ms}$ , no voltage reapplied
$V_{FM}$	Maximum peak forward voltage per diode	1.2	1.0	V	$I_{FM} = 3.0\text{A}$ , $T_J = 25^\circ\text{C}$
$I_{RM}$	Typical peak reverse leakage per diode	10	10	$\mu\text{A}$	$T_J = 25^\circ\text{C}$ , 100% $V_{RRM}$
		1.0	1.0	mA	$T_J = 150^\circ\text{C}$ , 100% $V_{RRM}$
$V_{RRM}$	Maximum repetitive peak reverse voltage range	50 to 1000		V	

### Thermal and Mechanical Specifications

		KBPC6	KBPC8	Units	Conditions
$T_J$	Operating and storage temperature range	-55 to 150		$^\circ\text{C}$	
$R_{thJC}$	Thermal resistance, junctions to case	6		K/W	
W	Approximate weight	6(0.21)		g(oz)	

# KBPC6PbF, KBPC8PbF SERIES

Bulletin U2790 09/05

International  
**IOR** Rectifier

## Voltage Ratings

Part Number	$V_{RRM}$ Maximum repetitive peak reverse voltage	$V_{RSM}$ Maximum non-repetitive peak reverse voltage
	V	V
KBPC6, KBPC8005	50	80
KBPC6, KBPC801	100	150
KBPC6, KBPC802	200	300
KBPC6, KBPC804	400	500
KBPC6, KBPC806	600	700
KBPC6, KBPC808	800	900
KBPC6, KBPC810	1000	1100

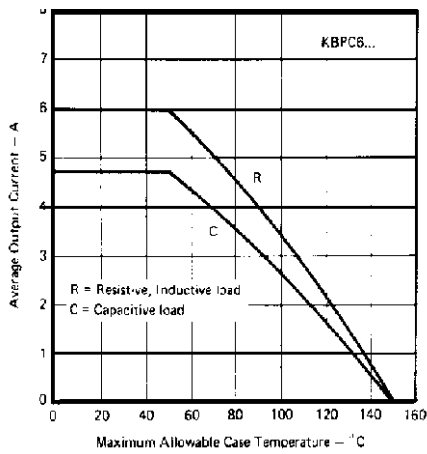


Fig. 1 - Current Ratings (KBPC6PbF)

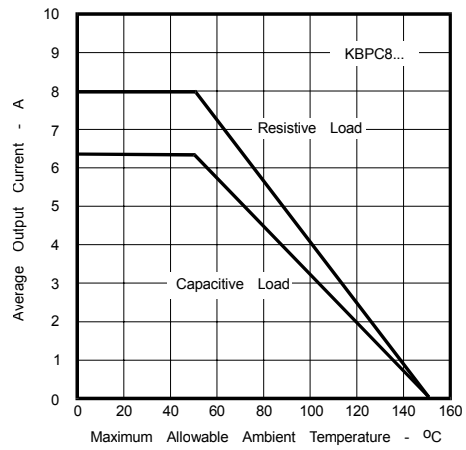


Fig. 2 - Current Ratings (KBPC8PbF)

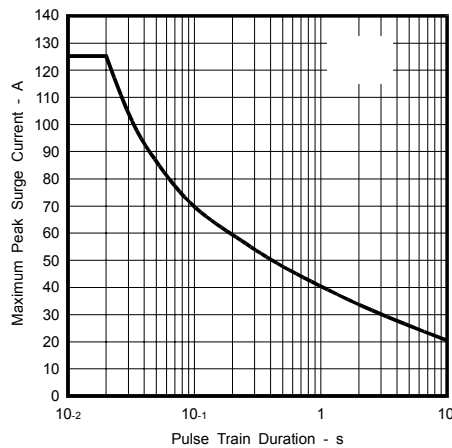
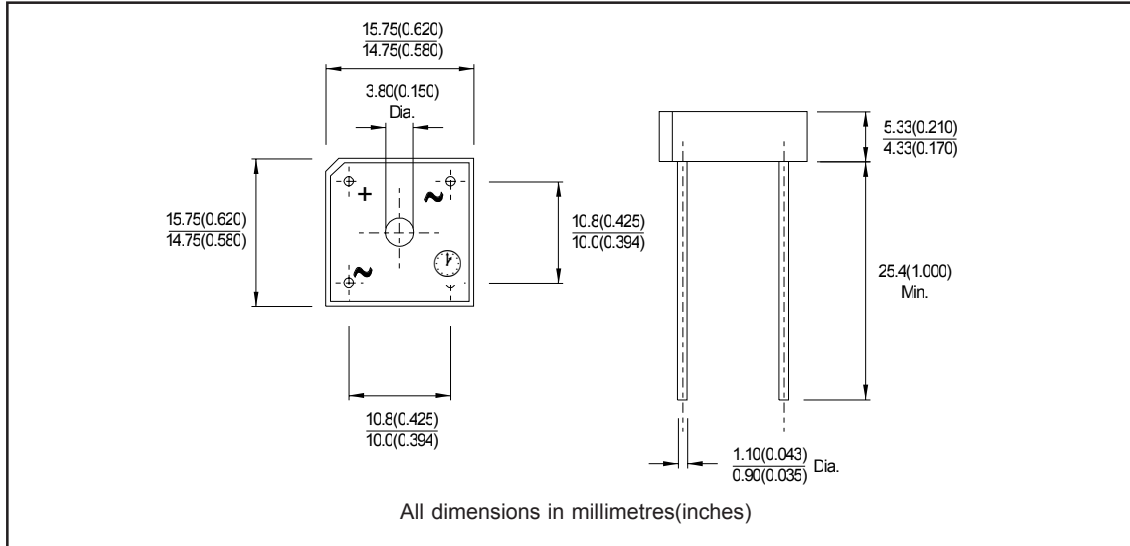


Fig. 2 - Non-Repetitive Surge Ratings  
(KBPC6PbF, KBPC8PbF)

## Outline (D-72 package)



## Ordering Information Table

Device Code			
<b>KBPC</b>	<b>8</b>	<b>10</b>	<b>PbF</b>
①	②	③	④
<b>1</b>	-	Single Phase Rectifier Plastic Bridge	
<b>2</b>	-	Current Ratings	8 = 8A 6 = 6A
<b>3</b>	-	Voltage Ratings (see Voltage Ratings table)	
<b>4</b>	-	Lead-Free	

Data and specifications subject to change without notice.  
This product has been designed and qualified for Industrial Level and Lead-Free.  
Qualification Standards can be found on IR's Web site.



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