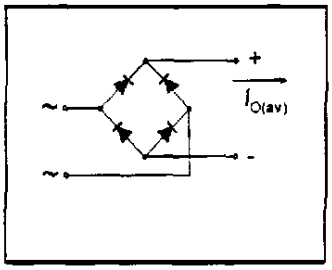
International
IOR Rectifier

KBPC8 SERIES

8A Single Phase Rectifier Bridge

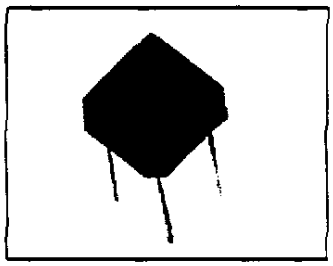
* Suitable for printed circuit board or chasis mounting.
* Compact construction.
* High surge current capability.
* Fully characterised data.
* Wide temperature range.



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

Description

The KBPC8 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

		KBPC8...	Units	Conditions	
I_O	Maximum DC output current	8.0	A	T_C = 50°C, Resistive or inductive load	
		6.4	A	T_C = 50°C, Capacitive load	
I_{FSM}	Maximum peak one cycle, non-repetitive surge current	125	A	t = 10ms, 20ms	Following any rated load condition and with rated V_{RRM} reapplied
		137	A	t = 8.3ms, 16.7ms	
I^2t	Maximum I^2t capability for fusing	78	A^2s	t = 10ms	Initial T_J = T_J max 100% V_{RRM} reapplied
		71	A^2s	t = 8.3ms	
		110	A^2s	t = 10ms	Initial T_J = T_J max no voltage reapplied
		100	A^2s	t = 8.3ms	
$I^2\sqrt{t}$	Maximum $I^2\sqrt{t}$ capability for fusing	1105	$A^2\sqrt{s}$	t = 0.1 to 10ms, no voltage reapplied	
V_{FM}	Maximum peak forward voltage per diode	1.0	V	I_{FM} = 3.0A, T_J = 25°C	
I_{RM}	Typical peak reverse leakage per diode	10	mA	T_J = 25°C, 100% V_{RRM}	
		100	mA	T_J = 150°C, 100% V_{RRM}	
f	Operating frequency range	400 to 1000	Hz		
V_{RRM}	Maximum repetitive peak reverse voltage range	50 to 1000	V		

Thermal and Mechanical Specifications

		KBPC8...	Units	Conditions
T_J, T_{stg}	Operating and storage temperature range	-55 to 150	°C	
R_{thJC}	Thermal resistance, junctions to case	6	K/W	
W	Approximate weight	6(0.21)	g (oz)	

KBPC8 SERIES

Voltage Specifications

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

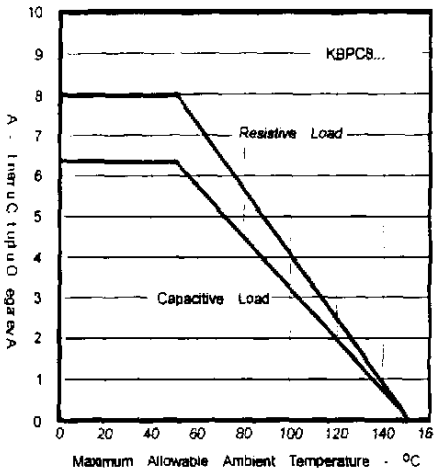


Fig. 1 - Current Ratings

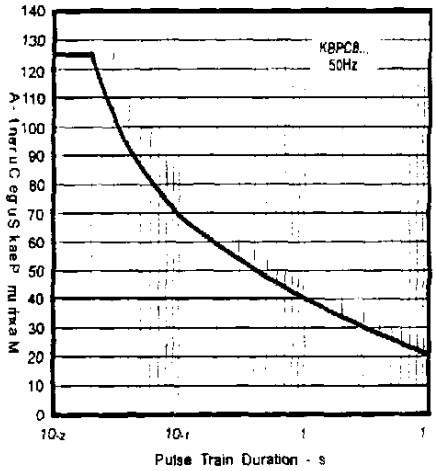
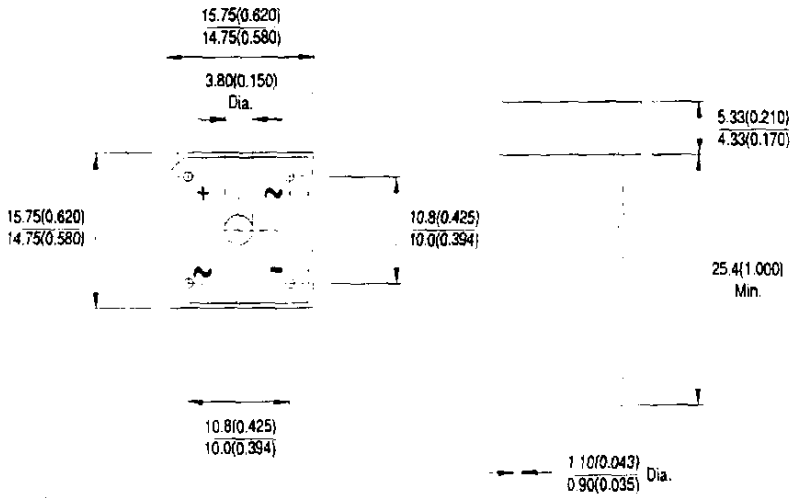


Fig. 2 - Non-Repetitive Surge Ratings

Outline



All dimmensions in millimetres(inches)

MJW/05/94