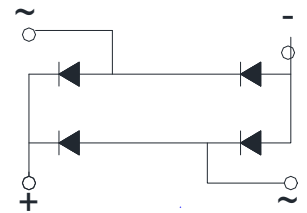
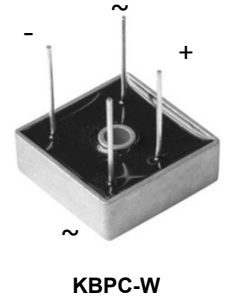
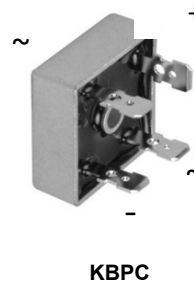


# KBPC50 Series

Glass Passivated Single-Phase Bridge Rectifiers  
 Voltage Range 50 to 1000V Forward Current 50A

## Features

- Surge overload rating - 200~400A peak
- High surge current capability
- Low thermal resistance
- Low forward voltage drop
- Mounting position: Any
- Electrically isolated base - 1800V
- Solderable 0.25" FASTON terminals
- Solder dip 275 °C max. 7 s, per JESD 22-B106
- Terminals: Tin plated leads,  
 Solderable per J-STD-002 and JESD22-B102,  
 Suffix letter "W" added to indicate wire leads(e.g. KBPC5010W)



**Schematic Diagram**

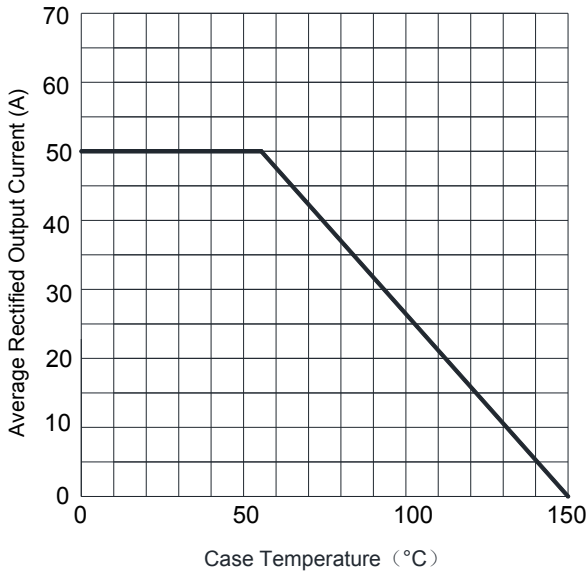
## Maximum Ratings and Electrical Characteristics

$T_A=25^{\circ}\text{C}$  Unless otherwise specified

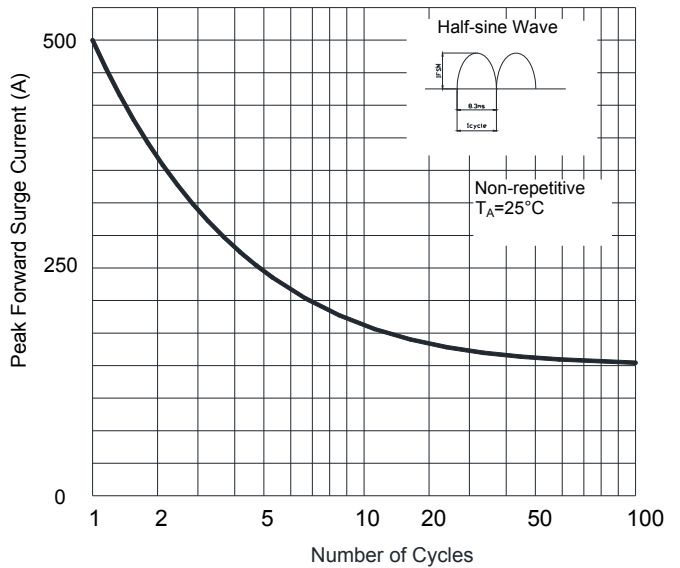
Parameter	Symbol	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	Unit
		KBPC 50005W	KBPC 5001W	KBPC 5002W	KBPC 5004W	KBPC 5006W	KBPC 5008W	KBPC 5010W	
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum Instantaneous Forward Voltage Drop per Diode ( $I_{FM}=25\text{A}$ )	$V_{FM}$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode ( $V_{RM}=V_{RRM}$ )	$I_{RRM}$	10							$\mu\text{A}$
Average Rectified Output Current @60Hz Sine Wave, R-load, With Heatsink, $T_c=55^{\circ}\text{C}$	$I_O$	50							A
Surge(Non-repetitive) Forward Current @60Hz Half- sine Wave, 1 cycle, $T_A=25^{\circ}\text{C}$	$I_{FSM}$	500							A
Current Squared Time @ $1\text{ms}\leq t\leq 8.3\text{ms}$ $T_J=25^{\circ}\text{C}$ , Rating of Per Diode	$I^2t$	1040							$\text{A}^2\text{S}$
Storage Temperature	$T_{STG}$	-55 to +150							$^{\circ}\text{C}$
Junction Temperature	$T_J$	-55 to +150							$^{\circ}\text{C}$
Dielectric Strength, Terminals to Case, AC 1 minute	$V_{dis}$	2.5							KV
Thermal Resistance, Between Junction and Case, With Heatsink	$R_{\theta J-C}$	1.3							$^{\circ}\text{C}/\text{W}$

**Ratings and Characteristics Curves**

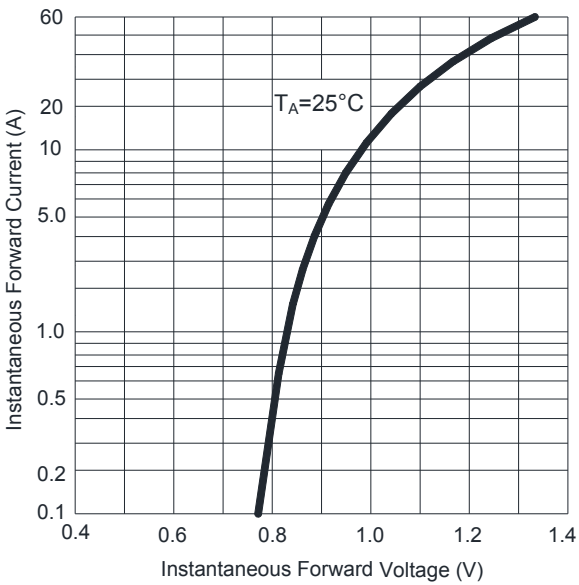
( $T_A = 25^\circ\text{C}$  unless otherwise noted)



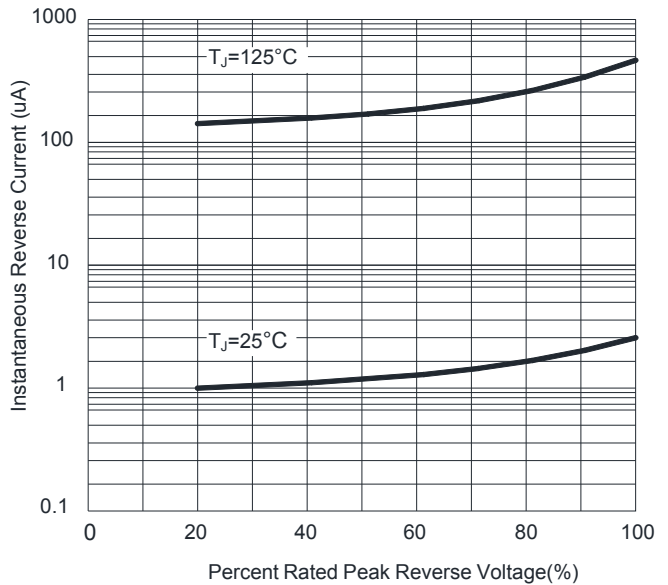
**Figure 1.  $I_o$ - $T_c$  Curve**



**Figure 2. Surge Forward Current Capability**



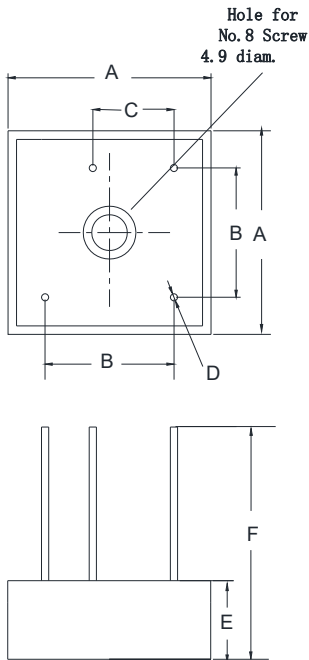
**Figure 3. Instantaneous Forward Voltage**



**Figure 4. Typical Reverse Characteristics**

**Package Outline Dimensions**

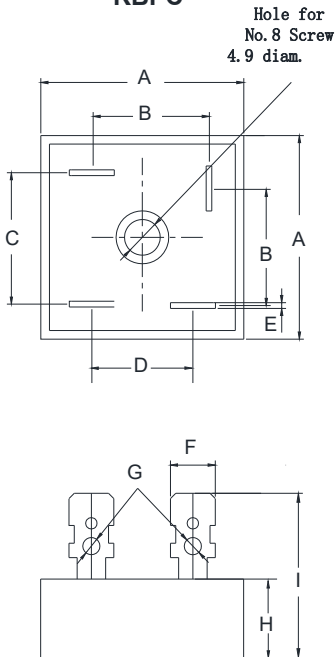
**KBPC-W**



KBPC-W		
Dim	Min	Max
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	10.8	11.2
F	30	

Dimensions in millimeters

**KBPC**



KBPC		
Dim	Min	Max
A	28.2	28.8
B	15.3	17.3
C	17.1	19.1
D	13.2	15.2
E	0.75	0.85
F	6.2	6.4
G	2.3	2.6
H	10.8	11.2
I	19	

Dimensions in millimeters