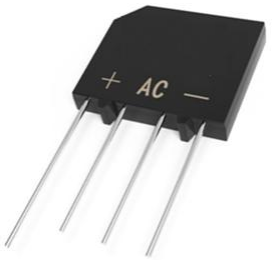
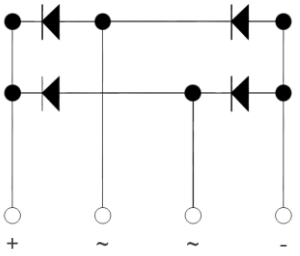
KBP310

3A Glass Passivated Single-Phase Bridge Rectifier

Features

- ◆ Glass Passivated Chip
- ◆ High Surge Current Capability
- ◆ Low Reverse Leakage Current
- ◆ Case to Terminal Isolation Voltage 2500V





Application

- ◆ LED Lighting
- ◆ Switching Mode Power Supply
- ◆ Household Electrical Appliances
- ◆ General Purpose Single-Phase Bridge Rectifier

Machanical Data

- ◆ Case: Plastic Package
- ◆ Marking / Polarity: Marked on Body
- ◆ Weight: About 1.5 Grams

Maximum Ratings and Thermal Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter		Rating	Unit
V_{RRM}	Recurrent Peak Reverse Voltage		1000	V
$I_{F(AV)}$	Average Forward Output Rectified Current, T_A = 120°C		3.0	A
V_F	Maximum Forward Voltage Per Leg, I_{FM} = 3.0A		1.03	V
I_{FSM}	Peak Forward Surge Current Single Half Sine-wave Superimposed on Rated Load		60	A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A = 25°C	5.0	μA
		T_A = 125°C	500	
i^2t	Rating for Fusing (t < 8.3ms)		15	A^2S
V_{isol}	Rms Isolation Voltage from Case to Leads		2500	V
C_J	Typical Junction Capacitance		18	pF
$R_{\theta JC}$	Maximum Thermal Resistance Per Leg		10	°C/W
T_J, T_{STG}	Operating Junction and Storage Temperature Range		-55 to 150	°C

Notes:

a. Junction to case with heatsink.

b. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M3 screw.

■ Characteristic Curve

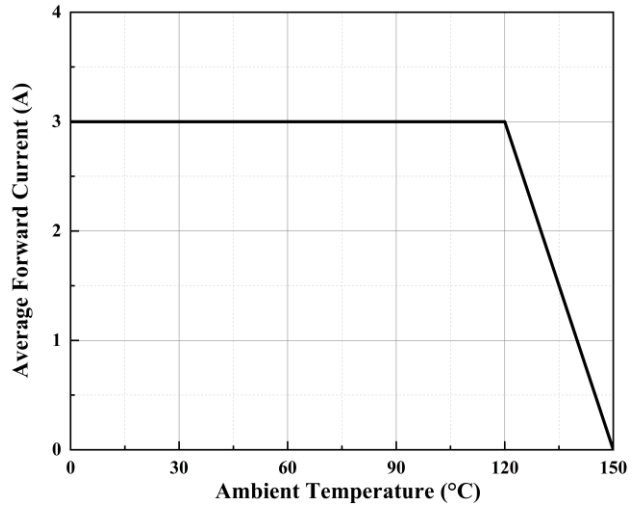


Figure 1. Forward Current Derating Curve

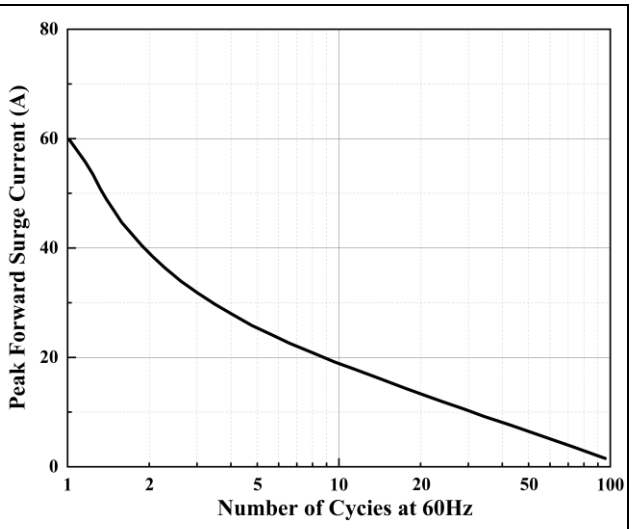


Figure 2. Maximum Non-Repetitive Surge Current

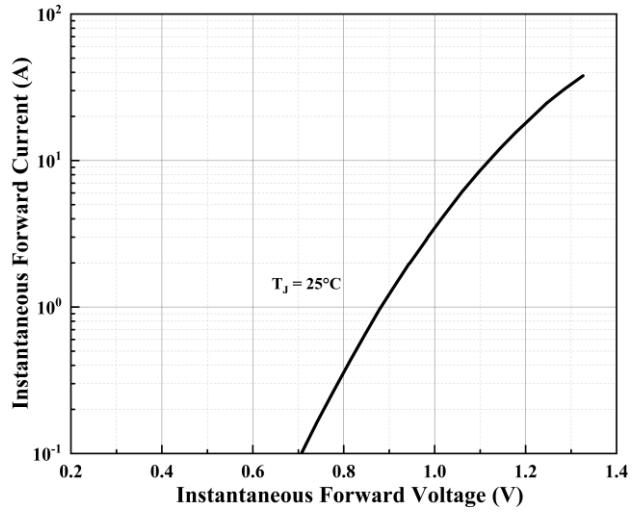


Figure 3. Typical Forward Characteristics Per Diode

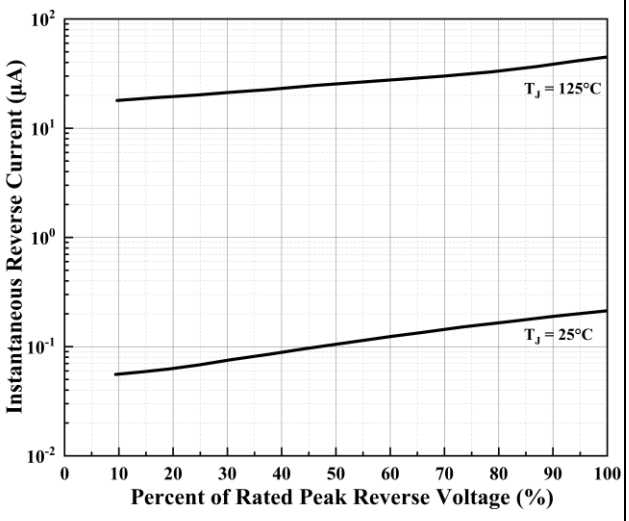
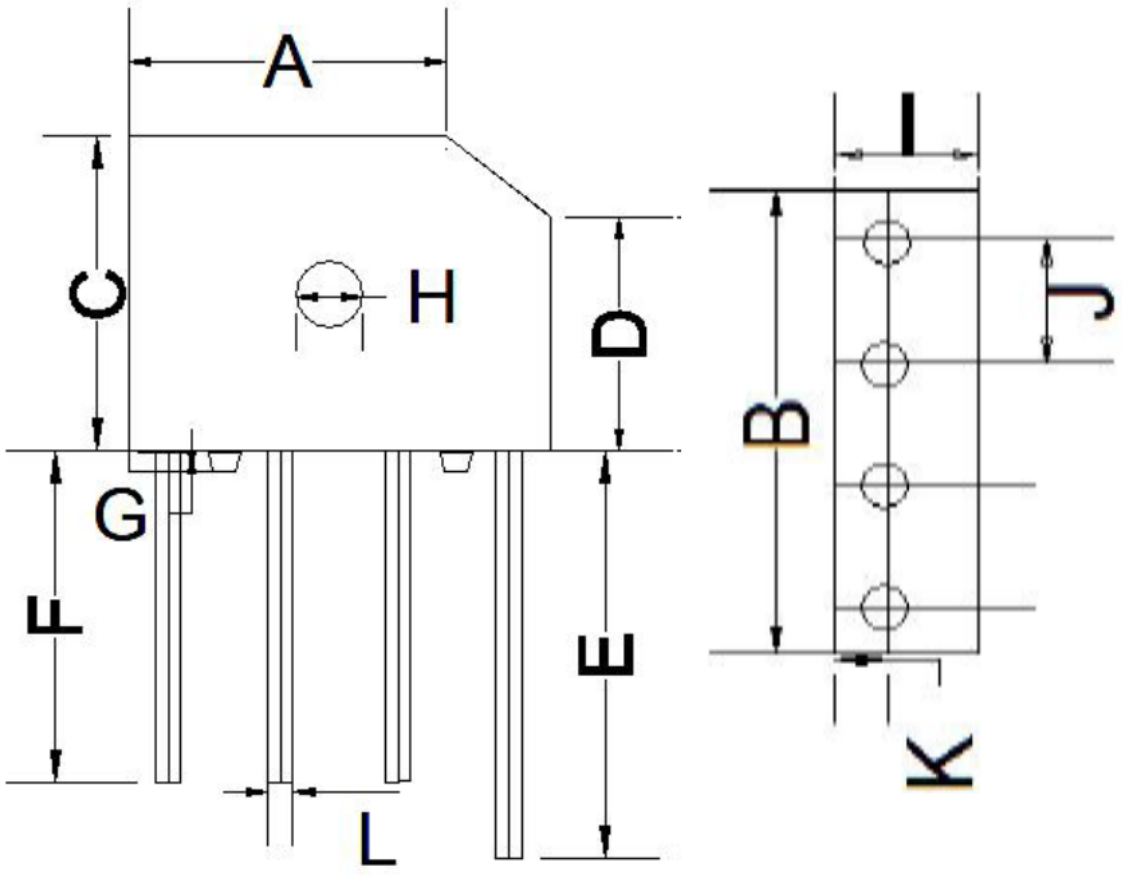


Figure 4. Typical Reverse Leakage Characteristics Per Diode

■ **Package Information**

KBP Series



Item	Min(mm)	Max(mm)
A	11.10	11.70
B	14.20	14.80
C	10.85	11.10
D	8.00	8.50
E	19.00	19.60
F	14.30	14.90
G	0.90	1.10
H	2.80	3.20
I	3.40	3.80
J	3.50	3.90
K	1.15	1.36
L	0.72	0.76