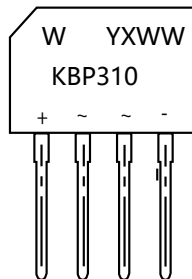


## Glass Passivated Bridge Rectifiers



### PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

### Features

- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability
- High heat-conducting performance
- Thermal welding performance: 260 °C/10sec

### Applications

- Switching Power Supply
- Home Appliances, Office Devices
- Industrial Auto-equipments

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

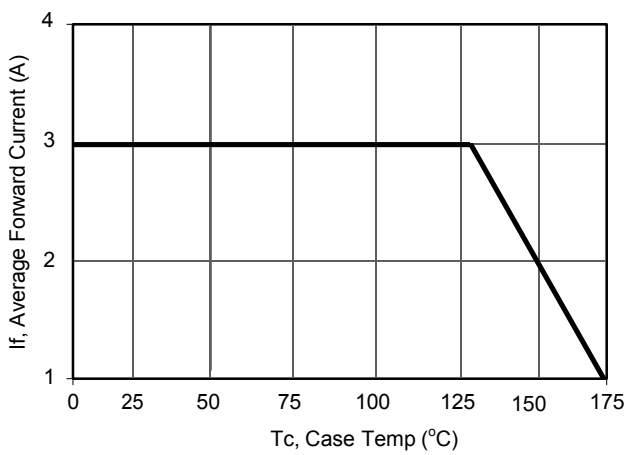
Parameter	Symbols	KBP310B	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	1000	V
Maximum RMS voltage	VRMS	700	V
Maximum DC Blocking Voltage	VDC	1000	V
Average Rectified Output Current	$I_o$	3.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	80	A
$I^2 t$ rating for fusing ( 1ms < $t$ < 8.3ms)	$I^2 t$	26.5	A <sup>2</sup> S
Maximum Forward Voltage at 1.5 A	VF	1.1	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	5 500	μA
Typical Junction Capacitance (Note1)	Cj	25	pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +175	°C
Typical thermal resistance (Note 2)	RthJA RthJL	30 11	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

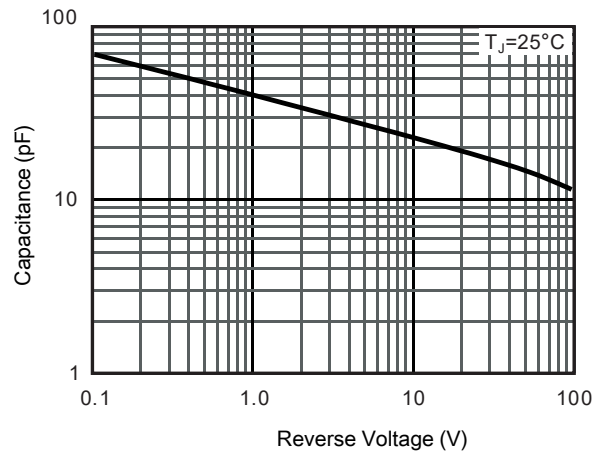
2. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.

Unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 20x20 mm copper pad per pin with heatsink

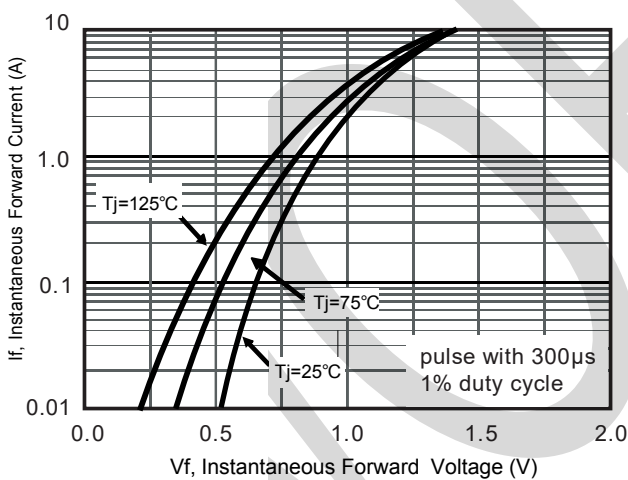
## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



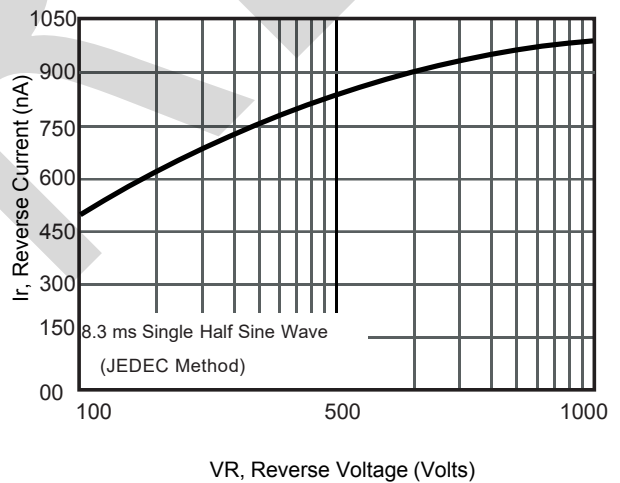
Current Derating, Case



Typical Junction Capacitance



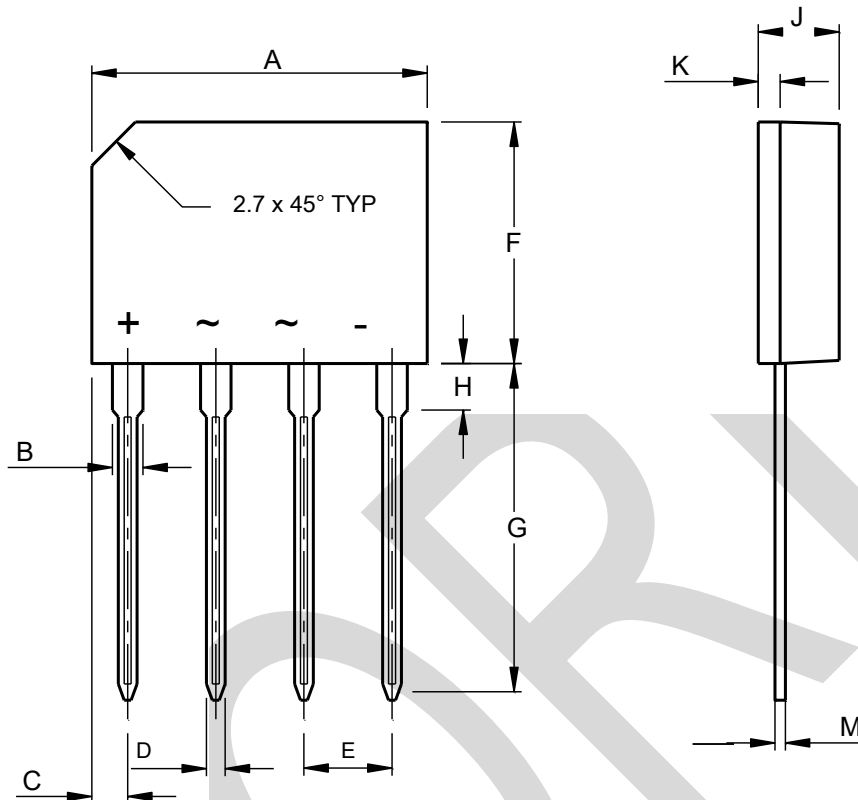
Typical Forward Voltage



Typical Reverse Current

## PACKAGE OUTLINE DIMENSIONS

### Outline Dimensions



### GBP mechanical data

UNIT		A	B	C	D	E	F	G	H	J	K	M
mm	max	14.5	1.5	1.8	0.9	4.1	10.6	14.5	2.2	3.3	1.1	0.6
	min	13.8	1.2	1.3	0.7	3.5	10.2	13.8	1.8	2.8	0.8	0.3
mil	max	570.8	59.1	70.9	35.4	161.4	417.3	570.8	86.6	129.9	43.3	23.6
	min	543.3	47.2	51.2	27.5	137.8	401.5	543.3	70.8	110.2	31.5	11.8