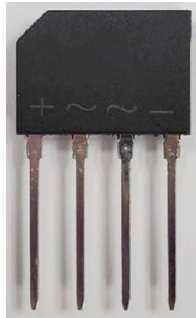


## Product Summary

V <sub>RRM</sub> (V)	I <sub>F</sub> (A)	V <sub>F</sub> Max (V) @ I <sub>F</sub> = 4.0A	I <sub>R</sub> Max (μA)
600, 1000	4	1.1	5

## Mechanical Data

- Package: KBP
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 Ⓢ
- Polarity Indicator: As Marked on The Body
- Weight: 1.52 grams (Approximate)
- Mounting Position: Any



## Features

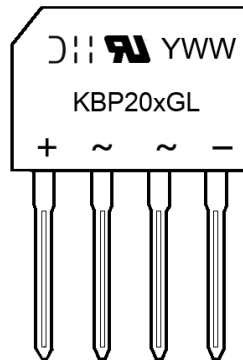
- Glass Passivated Die Construction
- Rating to 1000V PRV
- Ideal for Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic Technique
- UL Recognized File # E94661
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](mailto:contact@diodes.com) or your local Diodes representative.**  
<https://www.diodes.com/quality/product-definitions/>

## Ordering Information (Note 4)

Part Number	Qualification	Package	Packing	
			Qty.	Carrier
KBP206GL-TU	Commercial	KBP	35pcs	Tube
KBP210GL-TU	Commercial	KBP	35pcs	Tube

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  4. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

## Marking Information



KBP20xGL = Product Type Marking Code  
 YWW = Date Code Marking  
 Y = Last Digit of Year (ex: 1 = 2021)  
 WW = Week Code (01 to 53)

**Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	KBP206GL	KBP210GL	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	600	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	420	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	600	1000	V
Average Rectified Output Current @ T <sub>C</sub> = +105°C	I <sub>F(AV)</sub>		4.0 2.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	I <sub>FSM</sub>		130 110	A
Peak Forward Surge Current 1.0ms Single Half Sine-Wave	I <sub>FSM</sub>		260 220	A
I <sup>2</sup> t Rating for Fusing (t = 8.3ms)	I <sup>2</sup> t		70	A <sup>2</sup> s
Storage Temperature Range	T <sub>STG</sub>		-55 to +150	°C
Operating Junction Temperature Range	T <sub>J</sub>		-55 to +150	°C

**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Test Condition	Symbol	Max	Unit
Forward Voltage	I <sub>F</sub> = 4.0A T <sub>J</sub> = +25°C	V <sub>F</sub>	1.1	V
Leakage Current	V <sub>R</sub> Rated T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C	I <sub>R</sub>	5.0 500	μA
Typical Junction Capacitance (Note 5)		C <sub>J</sub>	40	pF

**Thermal Characteristics**

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 6)	R <sub>θJC</sub> R <sub>θJL</sub> R <sub>θJA</sub>	6.0 8.0 15	°C/W

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
6. Unit mounted on 75mm x 75mm x 1.6mm copper plate heatsink.

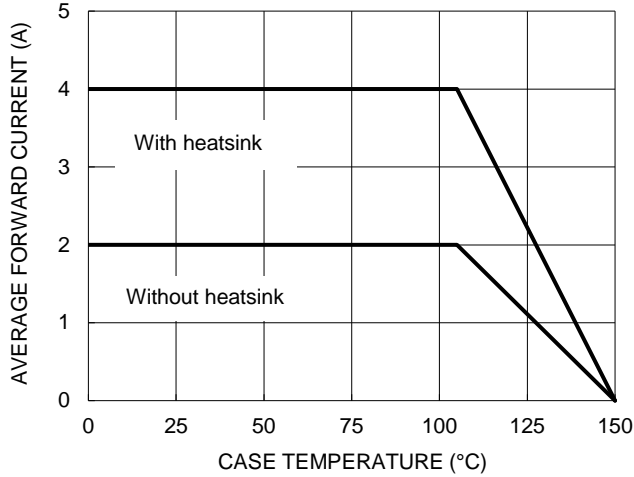


Figure 1. Forward Current Derating Curve

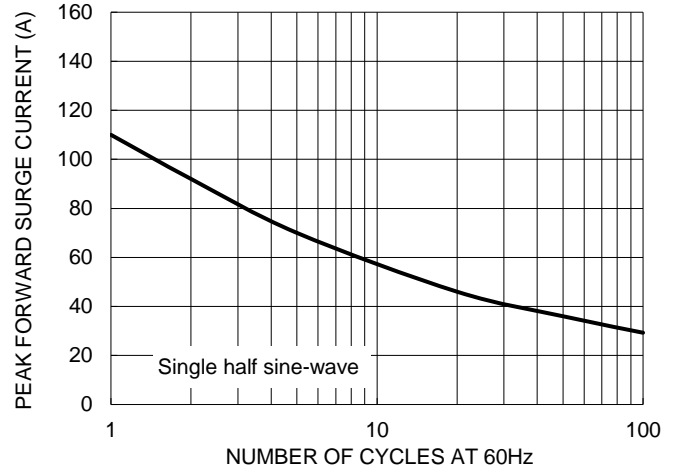


Figure 2. Maximum Non-Repetitive Surge Current

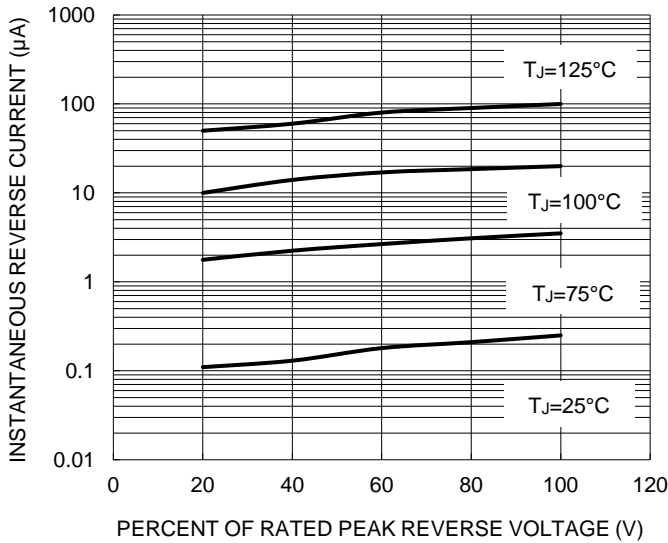


Figure 3. Typical Reverse Characteristics

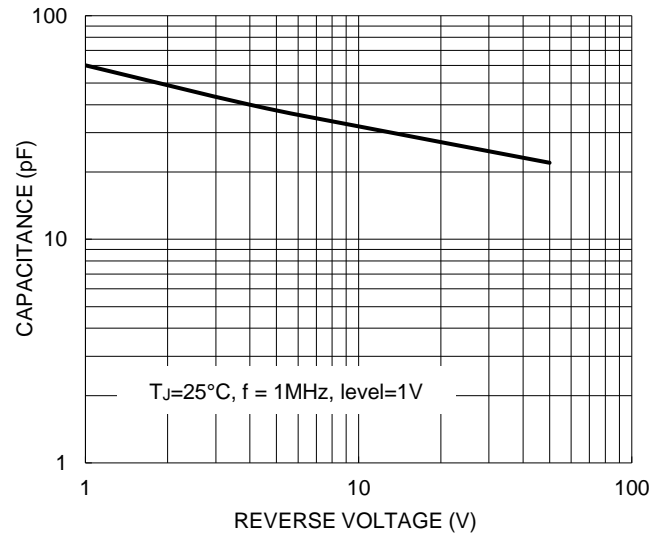


Figure 4. Typical Junction Capacitance

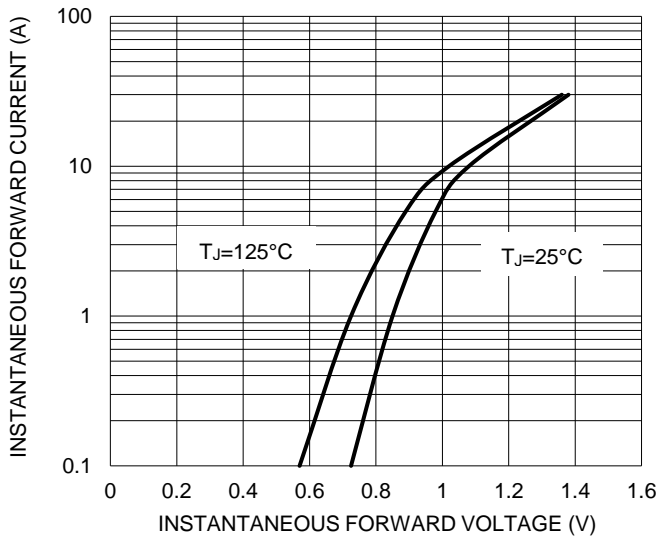


Figure 5. Typical Forward Characteristics

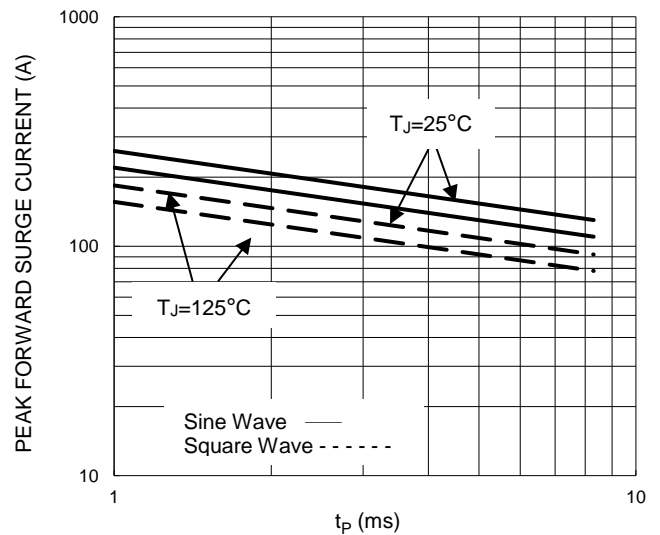
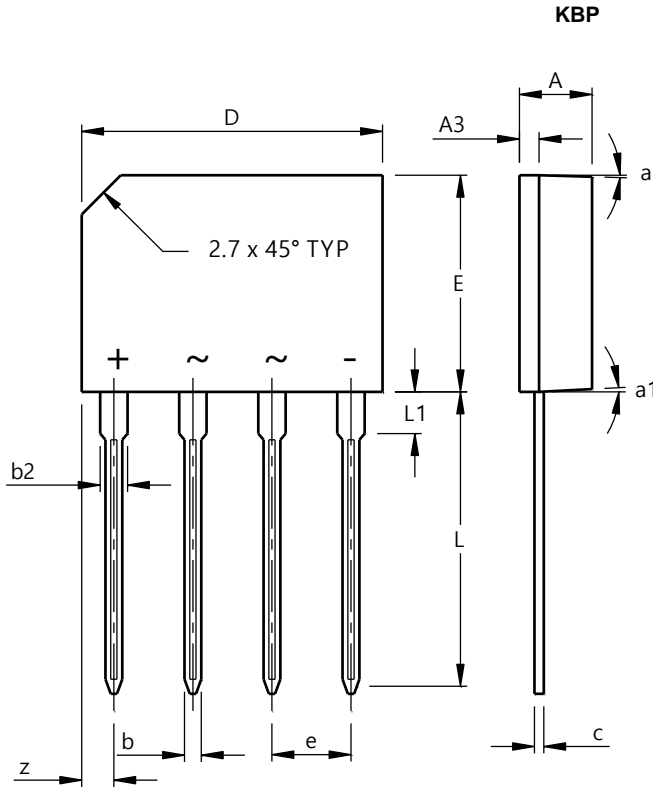


Figure 6. Non-Repetitive Surge Current

**Package Outline Dimensions**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.



KBP			
Dim	Min	Max	Typ.
A	3.35	3.65	-
A3	0.80	1.10	-
b	0.76	0.86	-
b2	1.22	1.42	-
c	0.35	0.55	-
D	14.25	14.75	-
E	10.20	10.60	-
e	3.56	4.06	-
L	14.25	14.73	-
L1	1.80	2.20	-
z	1.40	1.70	-
a	-	-	3°
a1	-	-	2°
All Dimensions in mm			

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