

Glass Passivated Bridge Rectifiers GBU10A Series

FEATURES

- Forward Current - 10A
- Reverse Voltage 600V, 800V
- Surge overload rating : 240 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Polarity : As marked on body
- Weight : 0.138 ounces, 3.9 grams
- Mounted position : Any

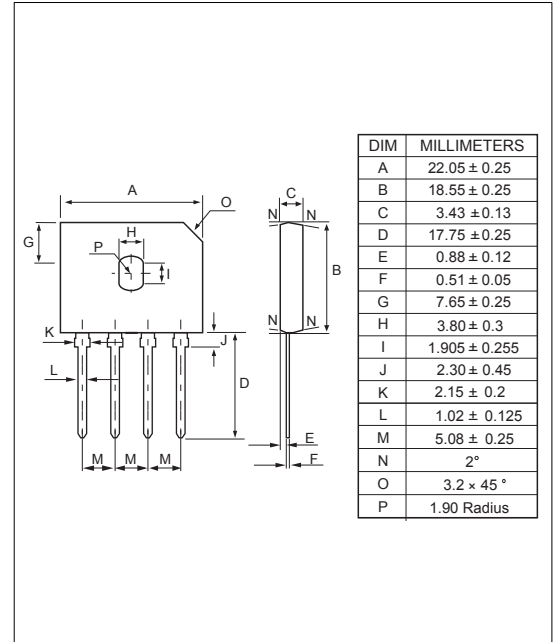
ORDERING INFORMATION

Part Number	QTY per Tube	QTY Per Carton Box
GBU10A60B	20 pcs	1,000 pcs
GBU10A80B	20 pcs	1,000 pcs

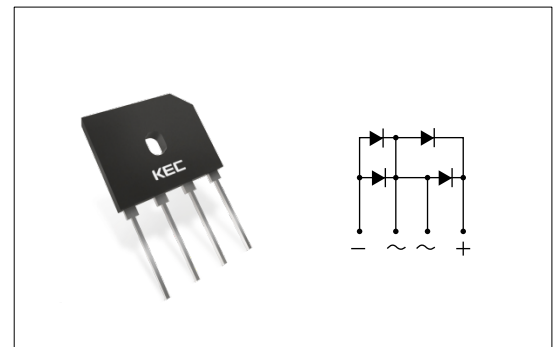
MARKING INFORMATION

Part Number	Marking code
GBU10A60B	10A60B
GBU10A80B	10A80B

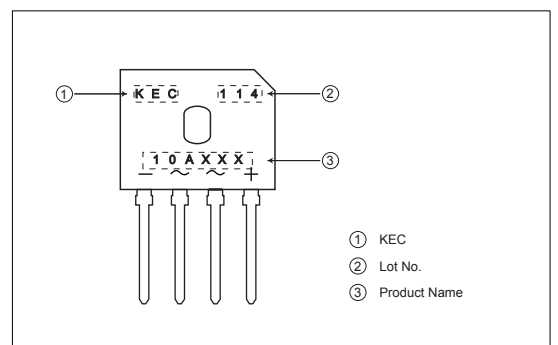
PACKAGE DIMENSION (GBU)



PIN CONFIGURATION



MARKING CODE



PRODUCT DATASHEET

Bridge Rectifiers – GBU10A Series

MAXIMUM RATING and ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	GBU10A60B	GBU10A80B	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	V
Maximum RMS voltage	V_{RMS}	420	560	V
Maximum DC Blocking Voltage	V_{DC}	600	800	V
Maximum Average Forward Rectified Current @ $T_c = 100^\circ\text{C}$. (with heatsink Note2) (without heatsink)	$I_{(AV)}$		10 3	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}		240	A
Maximum Forward Voltage at 5.0 A DC	V_F		1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_J=25^\circ\text{C}$		5	μA
	@ $T_J=125^\circ\text{C}$		500	
I^2t Rating for fusing ($t<8.3\text{ms}$)	I^2t		200	A^2S
Typical Junction Capacitance per Element (Note1)	C_j		86	pF
Typical Thermal Resistance (Note2)	$R\theta_{JC}$		2	$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_j		-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}		-55 ~ +150	$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Device mounted on 150mm*150mm*1.6mm Cu plate heatsink

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Fig.1 Forward Current Derating Curve

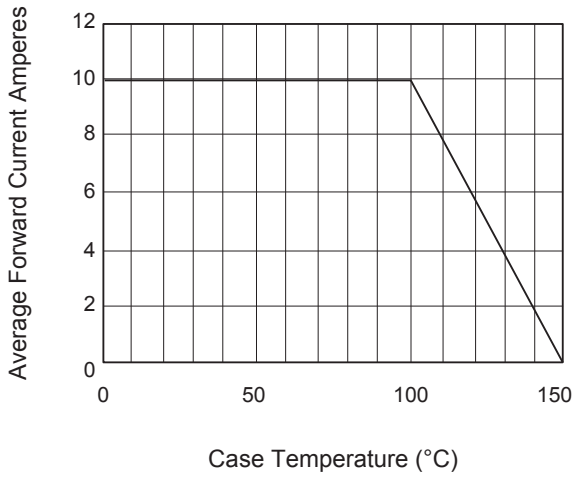


Fig.2 Typical Reverse Characteristics

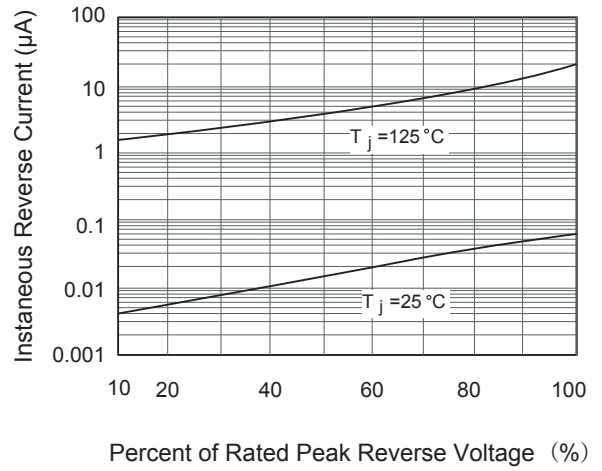


Fig.3 Typical Forward Characteristics

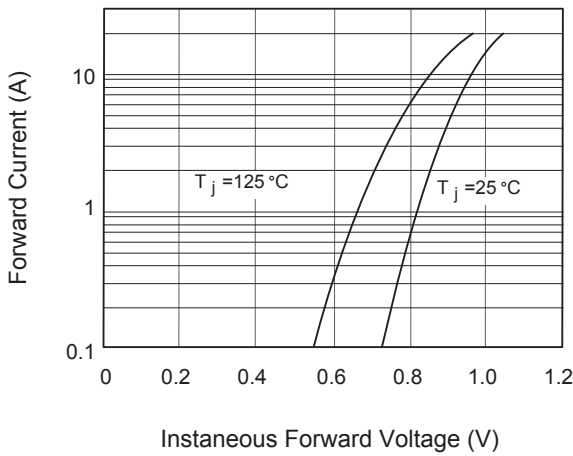


Fig.4 Typical Junction Capacitance

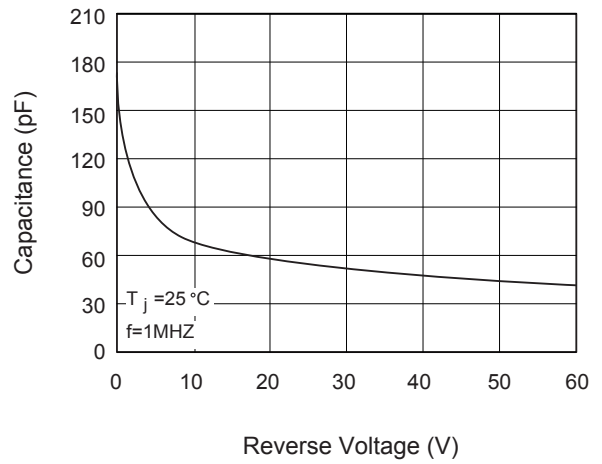
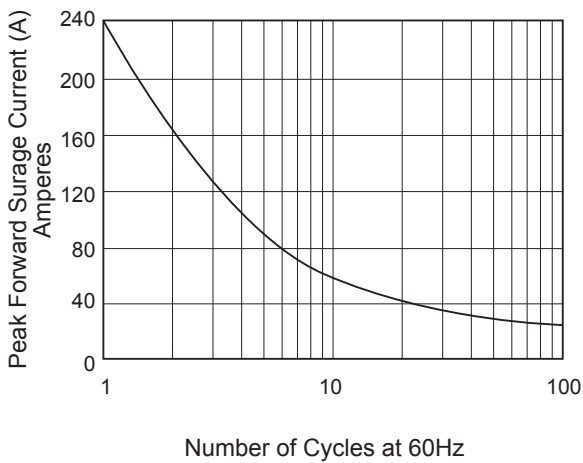


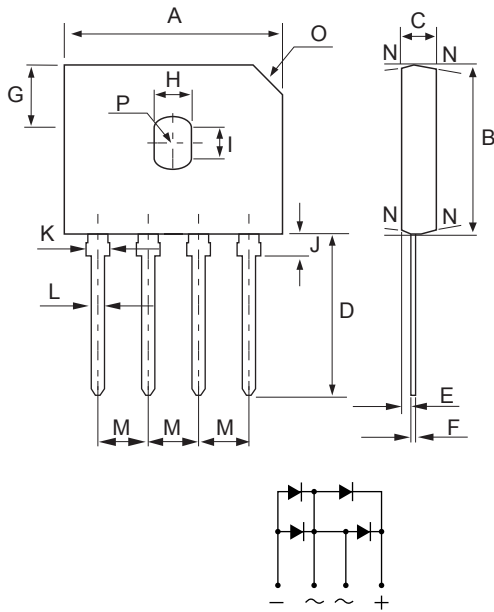
Fig.5 Maximum Forward Surge Current



PRODUCT DATASHEET

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PACKAGE DIMENSION (GBU)



DIM	MILLIMETERS
A	22.05 ± 0.25
B	18.55 ± 0.25
C	3.43 ± 0.13
D	17.75 ± 0.25
E	0.88 ± 0.12
F	0.51 ± 0.05
G	7.65 ± 0.25
H	3.80 ± 0.3
I	1.905 ± 0.255
J	2.30 ± 0.45
K	2.15 ± 0.2
L	1.02 ± 0.125
M	5.08 ± 0.25
N	2°
O	3.2 × 45°
P	1.90 Radius

PRECAUTION ON USING KEC PRODUCTS

1. The products described in this data are intended to be used in general-purpose electronic equipment (Office equipment, telecommunication equipment, measuring equipment, home appliances)
2. When you intend to use these products with equipment or device which require an extremely high of reliability and special applications (such as automobile, air travel aerospace, transportation equipment, life support, system and safety devices) in which special quality and reliability and the failure or malfunction of products may directly jeopardize or harm the human body or damage to property and any application other than the standard application intended, please be sure to consult with our sales representative in advance.
3. On designing your application, please use product within the ranges guaranteed by KEC for maximum rating, operating supply voltage range, heat radiation characteristics and other characteristics. User shall be responsible for failure or damage when used beyond the guaranteed ranges.
4. The technical information described in this data is limited to showing representative characteristics and applied circuit examples of the products and it does not constitute the warranting of industrial property, the granting of relative rights, or the granting of any license.
5. What are described in the data may be changed without any prior notice to reflect new technical development. Please confirm that you have received the latest product standards or specification before final design, purchase or use.
6. Although KEC is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors. Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. KEC shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by KEC.

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