KBP301 THRU KBP307

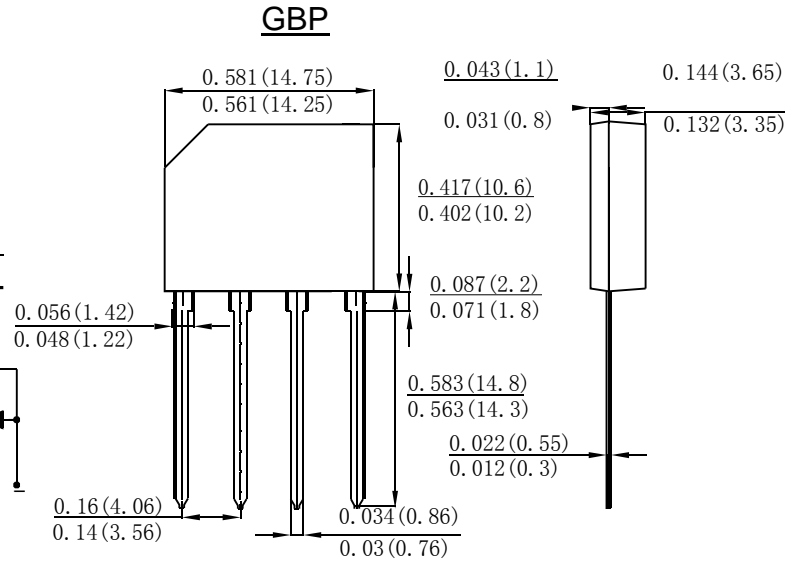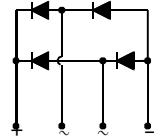**SINGLE PHASE 3 .0AMP GLASS PASSIVATEDBR IDGERECTIF IER**

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: KBP, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version

GBP

0.581(14.75)
0.561(14.25)

0.043(1.1)
0.031(0.8)

0.144(3.65)
0.132(3.35)

0.417(10.6)
0.402(10.2)

0.056(1.42)
0.048(1.22)

0.087(2.2)
0.071(1.8)

0.583(14.8)
0.563(14.3)

0.022(0.55)
0.012(0.3)

0.16(4.06)
0.14(3.56)

0.034(0.86)
0.03(0.76)

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KBP 301	KBP 302	KBP 303	KBP 304	KBP 305	KBP 306	KBP 307	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
	V_{RWM}								
	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T_C=100℃	$I_{F(AV)}$	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	14.94							A^2s
Forward Voltage per element @I_F=3.0A	V_{FM}	1.1							V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 500							uA
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	30							℃/W
	$R_{\theta JL}$	11							
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.

    2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..

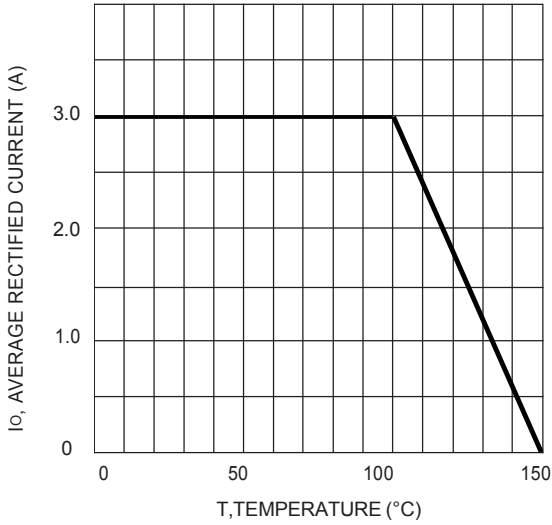Fig. 1 Forward Current Derating Curve
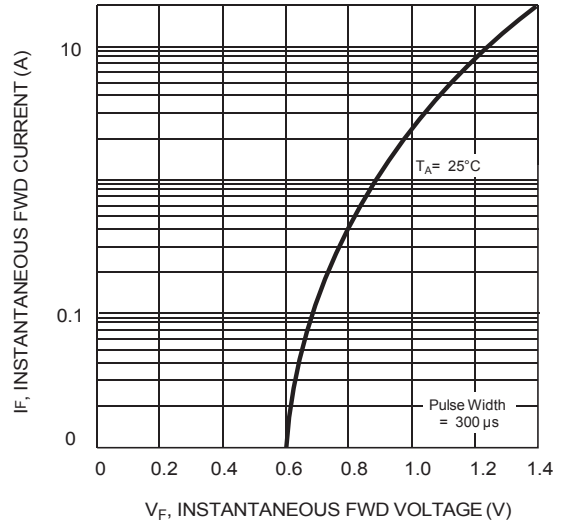

Fig. 2 Typical Fwd Characteristics

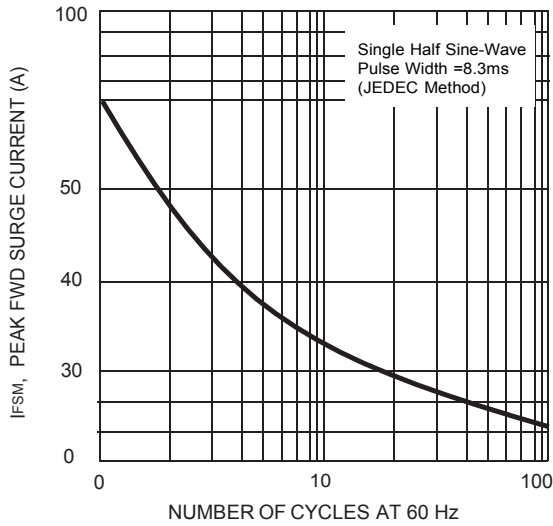Fig. 3 Max Non-Repetitive Peak Fwd Surge Current
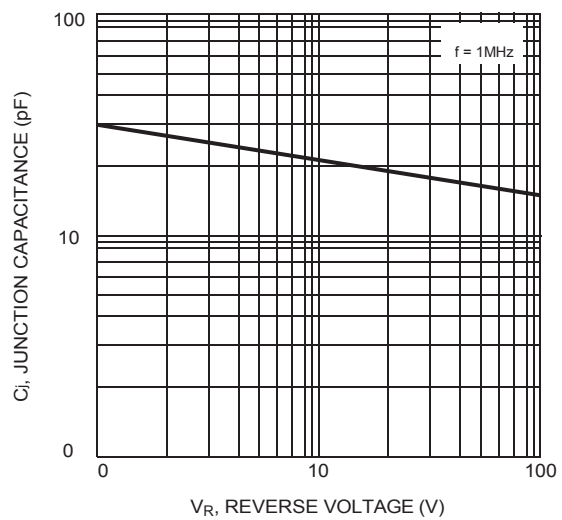

Fig. 4 Typical Junction Capacitance

Fig. 5 T ypical Reverse Characteristics (per element)

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