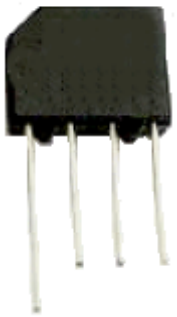
KBP2005G thru KBP210G

Bridge Rectifiers

Features

- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- Glass Passivated Die Construction



KBP

Mechanical Date

- **Case:** Molded plastic, KBP
- **Epoxy:** UL 94V-O rate flame retardant
- **Terminals:** Leads solderable per MIL-STD-202, method 208 guaranteed
- **Mounting Position:** Any
- **Weight:** 0.012ounce, 0.33gram

Major Ratings and Characteristics

$I_{F(AV)}$	**2.0 A**
V_{RRM}	**50 V to 1000 V**
I_{FSM}	**60 A**
V_F	**1.1 V**
T_j **max.**	**150 °C**

Maximum Ratings & Thermal Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60HZ, resistive or inductive load.
For capacitive load, derate current by 20%.

Items	Symbols	KBP 2005G	KBP 201G	KBP 202G	KBP 204G	KBP 206G	KBP 208G	KBP 210G	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	500	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T A=50℃	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							A
Typical thermal resistance per leg(1)	$R_{\theta JA}$	30							℃/ W
Typical thermal resistance per leg(1)	$R_{\theta JC}$	11							N•m
Operating junction temperature range	T_J	–55 to +150							℃
Storage temperature range	T_{STG}	–55 to +150							℃

Note 1: Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	I_F=2.0A		V_F	-	-	1.1	V
Reverse current	V_R=V_{DC}	T_j=25℃ T_j=125℃	I_R	-	-	10.0 500	μA
Typical Junction Capacitance	4.0 V ,1MHz		C_J	-	25.00	-	V

Characteristic Curves (T$_A$=25 ℃ unless otherwise noted)

FIG.1 Maximum Non-repetitive Forward Surge Current per Bridge Element

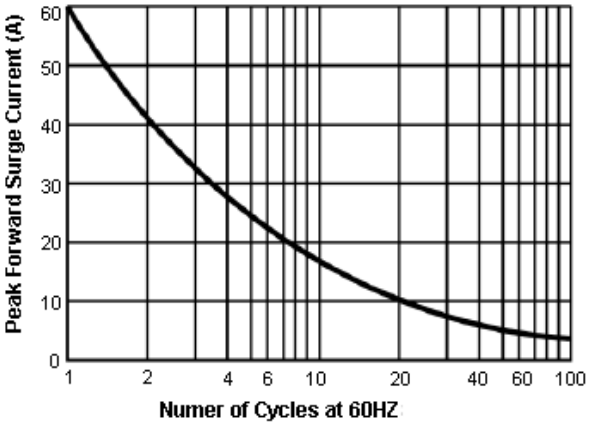


FIG.2 Maximum Forward Current Dereting Curve

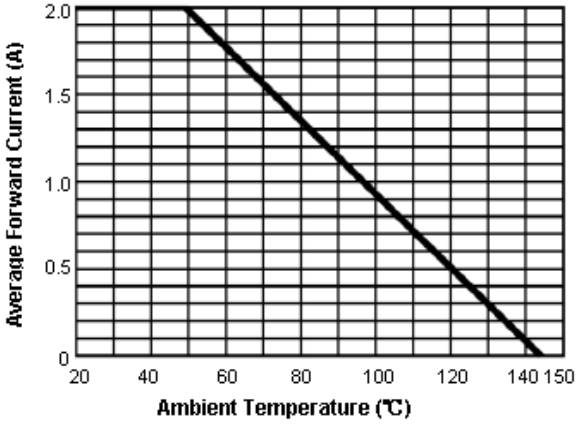


FIG.3 Typical Instantaneous Forward Characteristics per Bridge Element

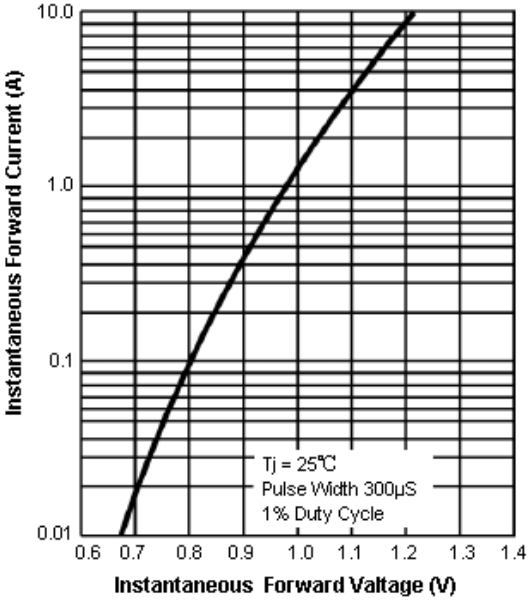
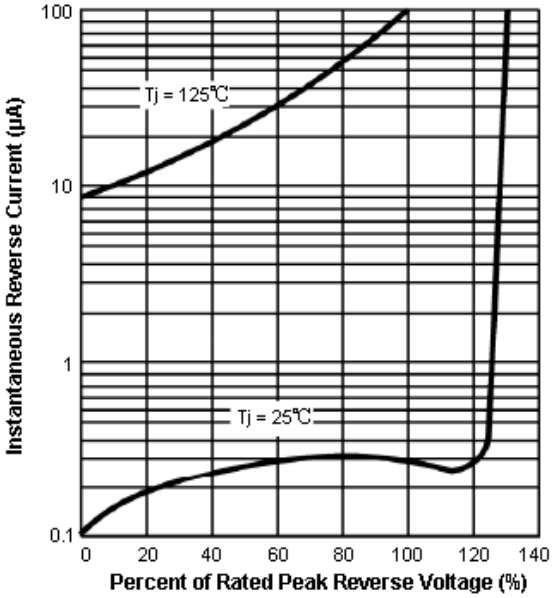


FIG.4 Typical Reverse Characteristics per Bridge Element



Package Outline