

KBP2005 THRU KBP210

SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 2.0 Ampere

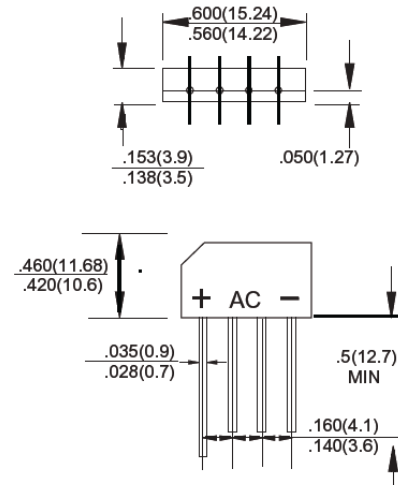
FEATURES

- ◆ High forward surge current capability.
- ◆ Ideal for printed circuit board.
- ◆ High temperature soldering guaranteed:
260°C/10 second, 0.375" (9.5mm) lead length
at 5 lbs. (2.3kg) tension.

Mechanical Data

- ◆ Case: Transfer molded plastic.
- ◆ Terminal: Lead solderable per MIL - STD - 202E
method 208°C.
- ◆ Polarity: Polarity symbols marked on case
- ◆ Mounting position: Any.
- ◆ Weight: 0.069 ounce, 1.95 gram.

KBP



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

PARAMETER	SYMBOL	KBP2005	KBP201	KBP202	KBP204	KBP206	KBP208	KBP210	UNIT	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Output Current, at $T_A=50^\circ\text{C}$ (Note 2)	$I_{(AV)}$	2.0							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDE method)	I_{FSM}	50							Amps	
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10							A^2s	
Maximum Instantaneous Forward Voltage Drop per bridge element at 2.0A	V_F	1.1							Volts	
Maximum DC Reverse Current at rated DC blocking voltage per element	I_R	$T_A = 25^\circ\text{C}$	5							μA
		$T_A = 100^\circ\text{C}$	0.5							mA
Typical Junction Capacitance (Note 1)	C_j	20							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	28							$^\circ\text{C}/\text{W}$	
Operating Temperature Range	T_j	-65 to +150							$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-65 to +150								

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

2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.5 X 0.5" (13 X 13 mm) copper pads.

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RATING AND CHARACTERISTIC CURVES KBP2005 THRU KBP210

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

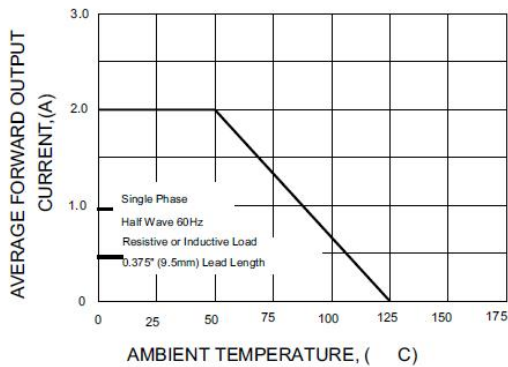


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

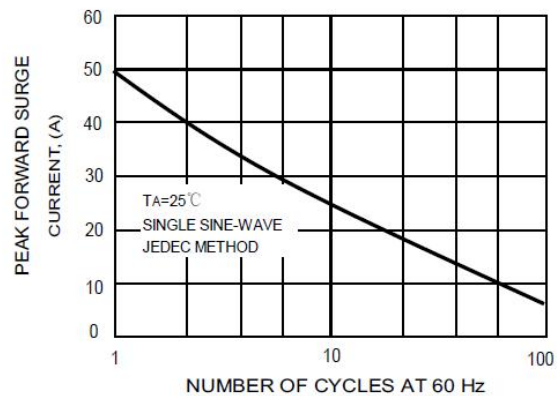


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

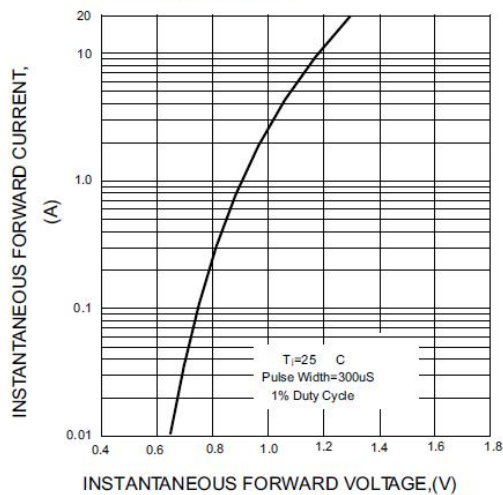


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

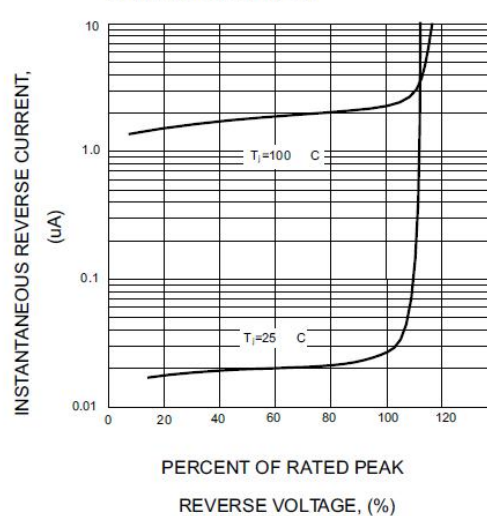
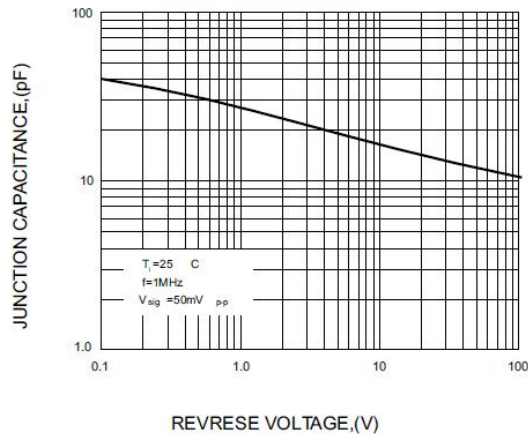


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.