KBP005-KBP10
SILICON BRIDGE RECTIFIERS

VOLTAGE RANGE: 50 - 1000V
CURRENT: 2.0 A

Features

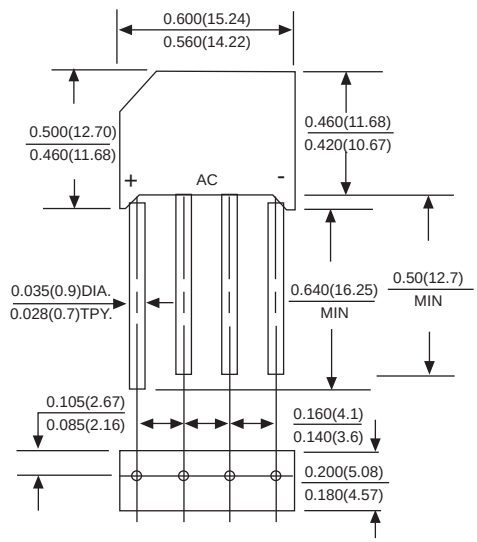
- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds,0.375 ”(9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols marked on case
- Mounting Position: Any
- Weight:0.069 ounce, 1.95 grams

RoHS COMPLIANT

KBP



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

MDD Catalog Number	*SYMBOLS*	KBP005	KBP01	KBP02	KBP04	KBP06	KBP08	KBP10	UNITS
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 output rectified current at T_A=50°C(Note 2)	$I_{(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amps
Rating for Fusing(t<8.3ms)	I^2t	10							A^2s
Maximum instantaneous forward voltage drop per birdge element at 1.0A	V_F	1.0							Volts
Maximum DC reverse current T_A=25°C	I_R	10							µA
at rated DC blocking voltage T_A=100°C		0.5							mA
Typical Junction Capacitance (Note 1)	C_J	20							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	28							°C/W
Operating junction temperature range	T_J	-60 to +150							°C
storage temperature range	T_{STG}	-60 to +150							°C

NOTES:
1.Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2.Unit mounted on P.C. board with 0.47 ” x 0.47 ” (12x12mm) copper pads,0.375 ” (9.5mm) lead length.

FIG. 1- FORWARD CURRENT DERATING CURVE

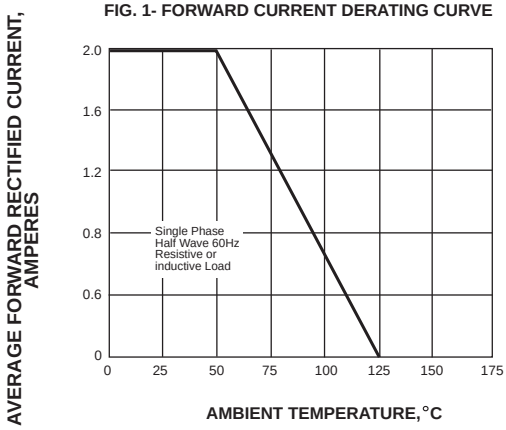


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

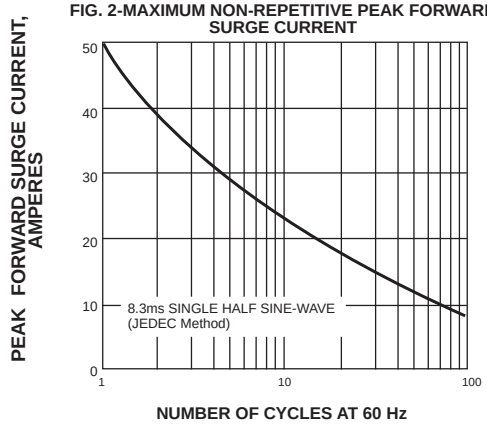


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

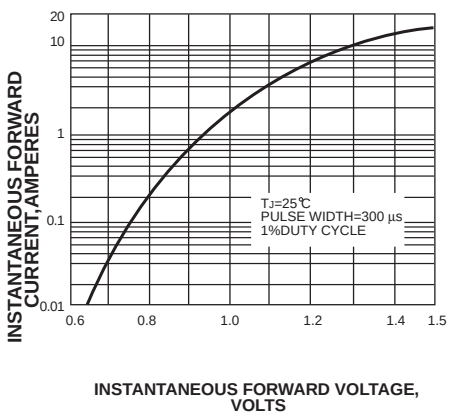


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

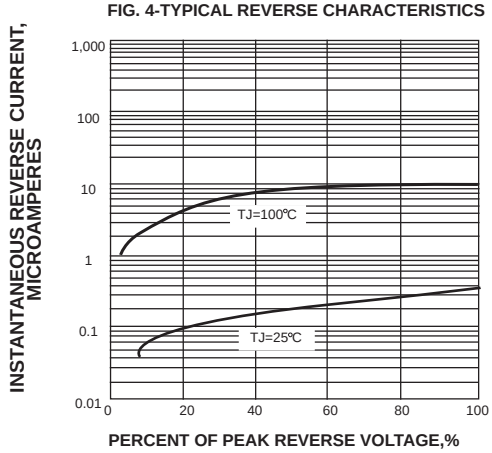


FIG. 5-TYPICAL JUNCTION CAPACITANCE

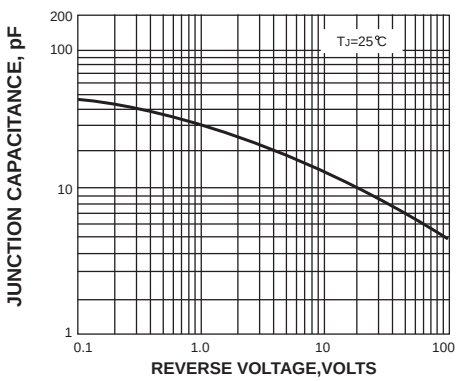


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

