

2KBP005 - 2KBP10

PRV : 50 - 1000 Volts

I_o : 2.0 Amperes

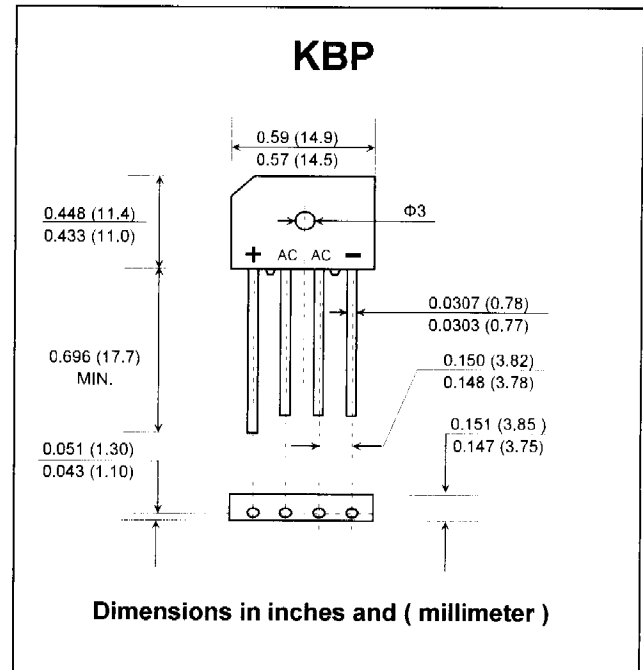
FEATURES :

- * High case dielectric strength
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Terminals : Plated lead solderable per
MIL-STD-202, Method 208 guaranteed
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 3.4 grams

SILICON BRIDGE RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified
Single phase, half wave, 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

RATING	SYMBOL	2KBP 005	2KBP 01	2KBP 02	2KBP 04	2KBP 06	2KBP 08	2KBP 10	UNIT
Maximum Recurrent 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}	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Current T _a = 55°C	I _{F(AV)}	2.0							A
Peak Forward Surge Current, Single sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	60							A
Rating for fusing (t < 8.3 ms.)	I ² t	15							A ² S
Maximum Instantaneous Forward Voltage drop at I _F = 1.0 A, T _J =25°C	V _F	1.0							V
Maximum DC Reverse Current T _a = 25 °C	I _R	10							μA
at Rated DC Blocking Voltage per element T _a 125 °C	I _{R(H)}	500							μA
Typical Junction Capacitance per element (Note 1)	C _J	25							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	30							°C/W
Operating Junction Temperature Range	T _J	- 50 to + 165							°C
Storage Temperature Range	T _{STG}	- 50 to + 165							°C

Notes :

1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2) Thermal resistance from Junction to Ambient with units mounted on a 0.47" X 0.47" (12mm X 12mm) Cu. Pads.

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RATING AND CHARACTERISTIC CURVES (2KBP005 - 2KBP10)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

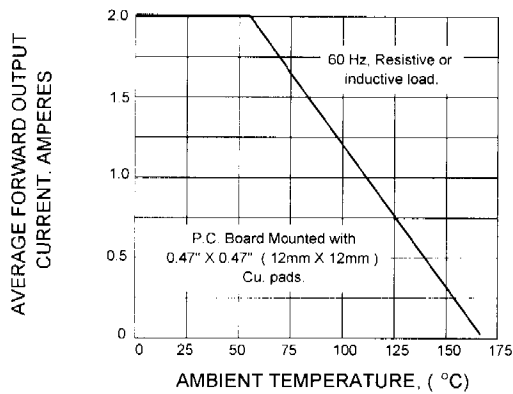


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

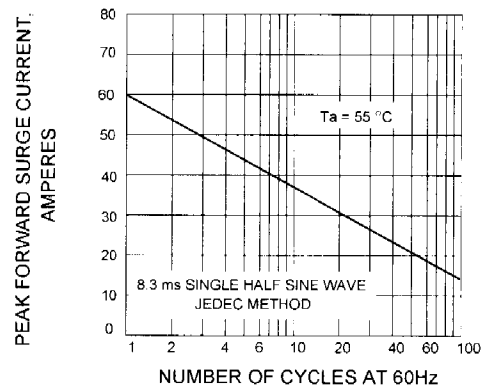


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

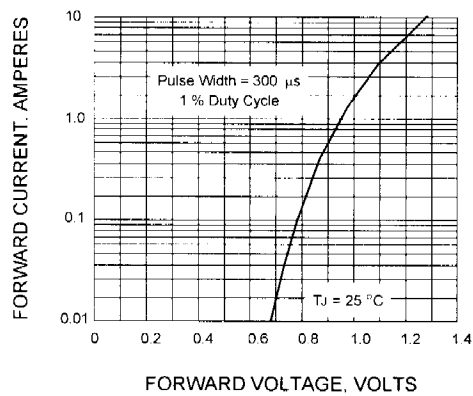


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

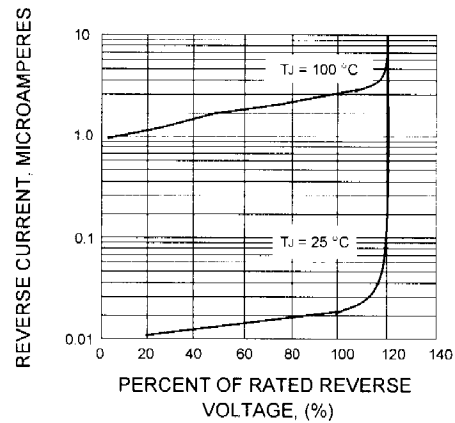


FIG.5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

