PECLERS®

KBP301 THRU KBP307

SINGLE-PHASE SILICON BRIDGE RECTIFIER

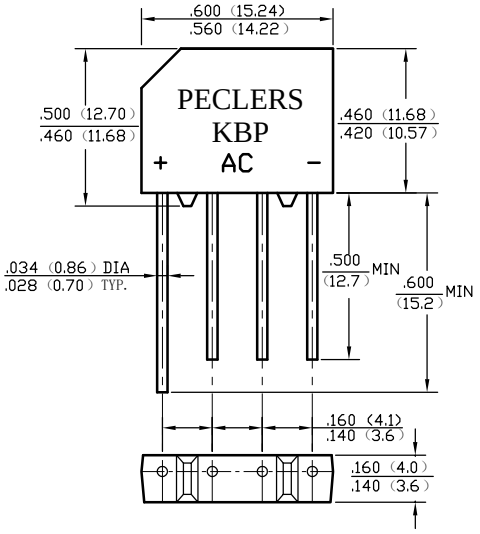
REVERSE VOLTAGE: **50 to 1000 VOLTS**
FORWARD CURRENT: **3.0 AMPERE**

FEATURES

- Surge overload rating: 60 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Reliable low cost construction utilizing molded plastic technique

MECHANICAL DATA

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: 0.062ounce, 1.6gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	*KBP301*	*KBP302*	*KBP303*	*KBP304*	*KBP305*	*KBP306*	*KBP307*	Units
Maximum Recurrent 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 Current .375"(9.5mm) Lead Length at T_A=50℃	$I_{(AV)}$	3.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							**Amp**
Maximum Forward Voltage at 3.0A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	10.0							**uAmp**
at Rated DC Blocking Voltage T_A=100℃		500							
Typical Junction Capacitance (Note 1)	C_J	25							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	30							**℃/W**
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	11							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

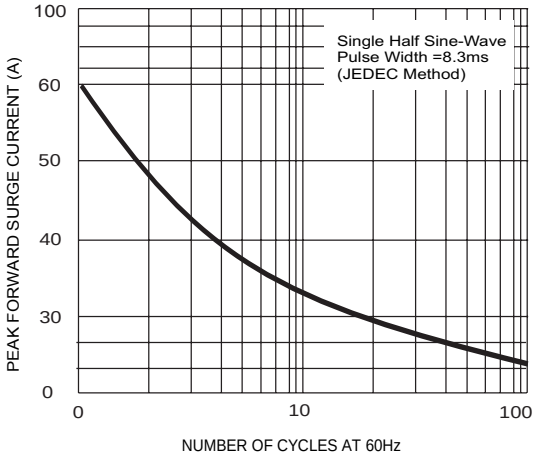


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

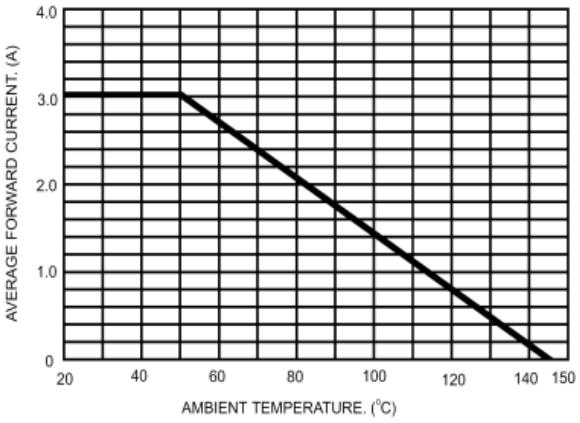


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

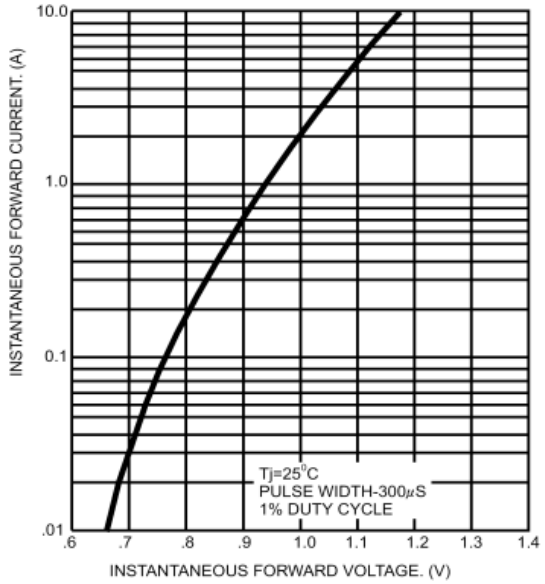


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT