

AKBL400 - AKBL410

PRV : 50 - 1000 Volts

Io : 4.0 Amperes

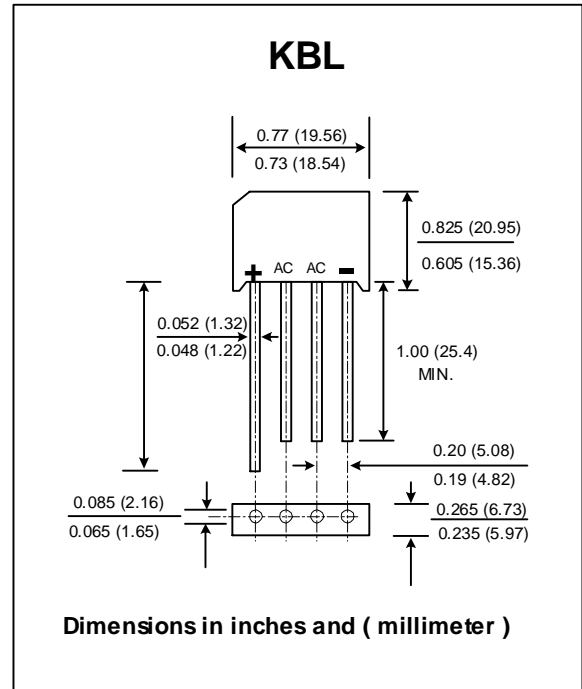
FEATURES :

- * 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 : Reliable low cost construction utilizing molded plastic technique
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL - STD 202 , Method 208 guaranteed
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 5.15 grams

AVALANCHE 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	AKBL 400	AKBL 401	AKBL 402	AKBL 404	AKBL 406	AKBL 408	AKBL 410	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
Minimum Avalanche Breakdown Voltage at 100 μ A	$V_{BO(min.)}$	100	150	250	450	700	900	1100	V
Maximum Avalanche Breakdown Voltage at 100 μ A	$V_{BO(max.)}$	550	600	700	900	1150	1350	1550	V
Maximum Average Forward Current $T_c = 50^\circ\text{C}$	$I_{F(AV)}$	4.0							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Rating for fusing at ($t < 8.3$ ms.)	I^2t	166							A^2S
Maximum Forward Voltage per Diode at $I_F = 4.0$ A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10							μ A
	$I_{R(H)}$	1.0							mA
Typical Thermal Resistance (Note1)	$R_{\theta JA}$	10							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	- 50 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 150							$^\circ\text{C}$

Note :

1) Thermal resistance from Junction to ambient with units mounted on a 3" x 3" x 0.11" (7.5 x 7.5 x 0.3 cm) Cu. plate.

RATING AND CHARACTERISTIC CURVES (AKBL400 - AKBL410)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

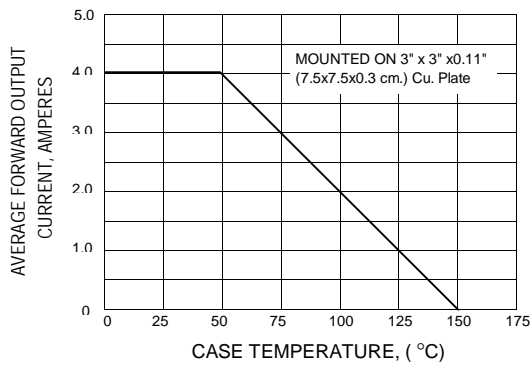


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

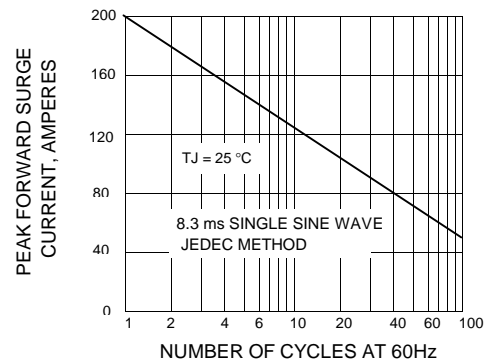


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

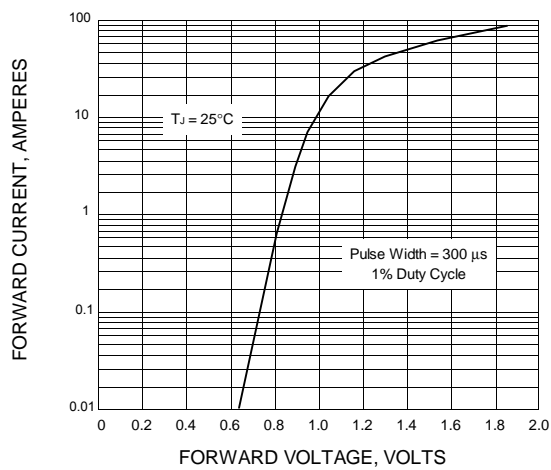


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

