KBP3005 THRU KBP310

GLASS PASSIVATED FAST BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

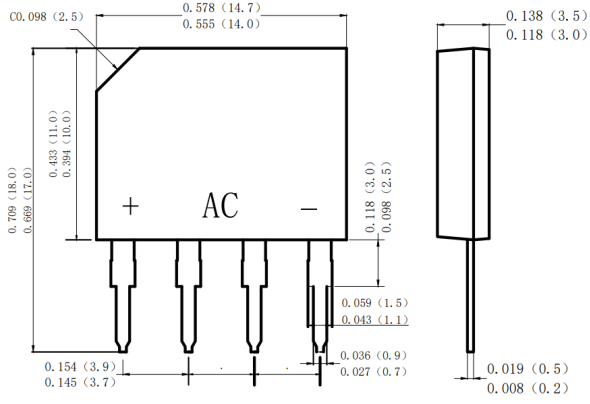
FEATURES

Ideal for printed circuit boards
Reliable low cost construction technique results in inexpensive product
High temperature soldering guaranteed: 260℃/10 seconds/0.375" (9.5mm) lead length at 5 lbs.,(2.3kg) tension

MECHANICAL DATA

Case: Molded plastic
Lead: Solder plated
Mounting postition:Any

KBP



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	30	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T_C=100℃ (with heatsink)	$I_{(AV)}$	3.0							A
Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	75.0							A
Maximum Forward Voltage at1.5 A DC	V_F	0.95							V
Maximum DC Reverse Current @ T_A=25 ℃ at Rated DC Blocking Voltage @ T_A=125℃	I_R	5.0 500							uA
I^2t Rating for Fusing (t<8.3ms)	I^2t	19.2							A^2s
Typical Junction Capacitance Per Element (Note1)	C_J	45							pF
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	4.2							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

NOTES: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTIC CURVES KBP3005 THRU KBP310

FIG. 1- FORWARD CURRENT DERATING CURVE

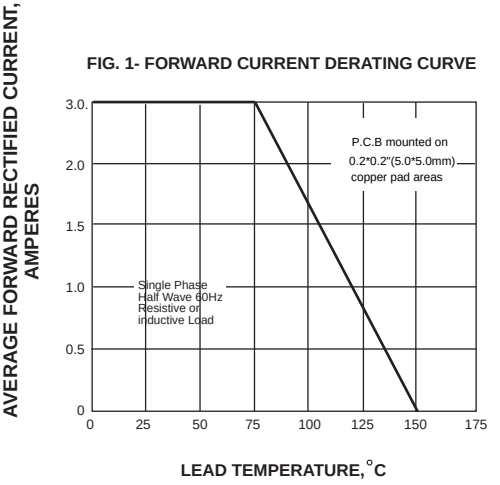


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

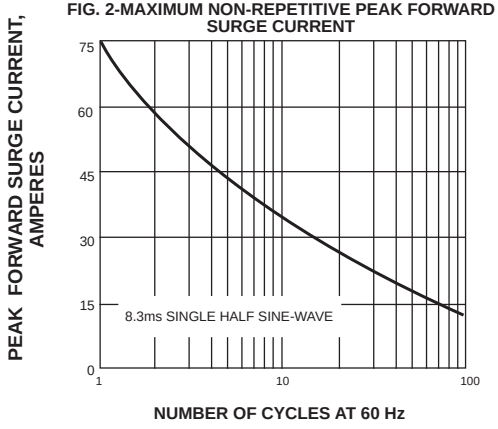


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

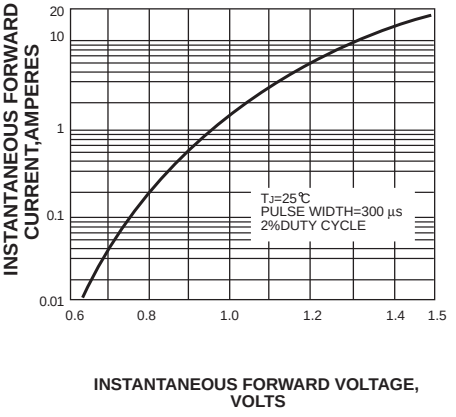


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

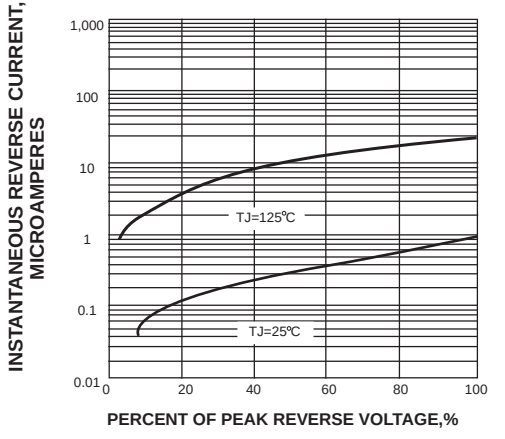


FIG. 5-TYPICAL JUNCTION CAPACITANCE

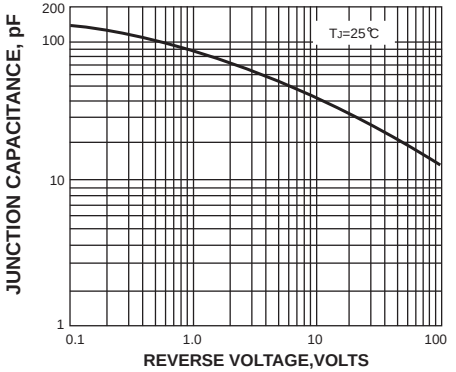


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE