



BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 V

Forward Current - 6.0 A

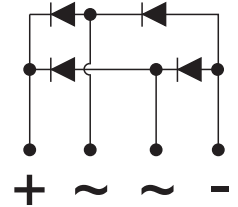
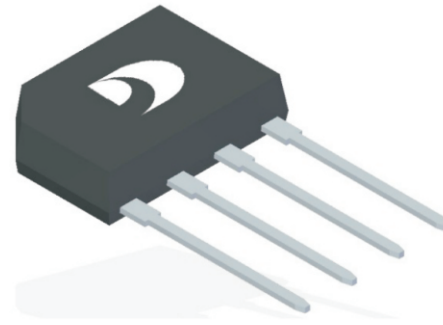
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V#0

MECHANICAL DATA

- Polarity : As marked on body
- Weight : 0.05 ounces, 1.52 grams
- Mounting position : Any

KBP



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	KBP 6005	KBP 601	KBP 602	KBP 604	KBP 606	KBP 608	KBP 610	Units	
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 Rectified Current @TC=100°C <small>(With heatsink) (Without heatsink)</small>	$I_{(AV)}$					6.0 2.4				A
Peak Forward Surge Current 8.3ms single half sine-wave	I_{FSM}					150				A
Maximum Forward Voltage at 6.0A DC	V_F					1.0				V
Maximum DC Reverse Current at rated Blocking Voltage <small>$T_j = 25^\circ\text{C}$ $T_j = 125^\circ\text{C}$</small>	I_R					5 500				uA
I^2t Rating for fusing (3ms≤t≤8.3ms)	I^2t					93.375				A ² S
Typical Junction Capacitance per element (Note 1)	C_j					60				pF
Typical thermal resistance (Unit mounted on 75mmx75mmx1.6mm Copper plate heat sink.)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$					15 6 8				°C/W
Typical thermal resistance (without heat sink)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$					40 14 20				°C/W
Operating Junction Temperature Range	T_j					-55 ~ +150				°C
Storage Temperature Range	T_{stg}					-55 ~ +150				°C

Note: (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



Fig.1 Forward Current Derating Curve

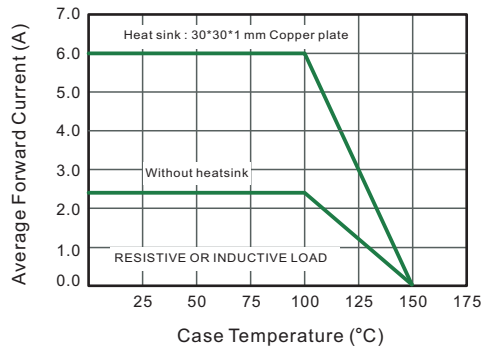


Fig.2 Typical Instantaneous Reverse Characteristics

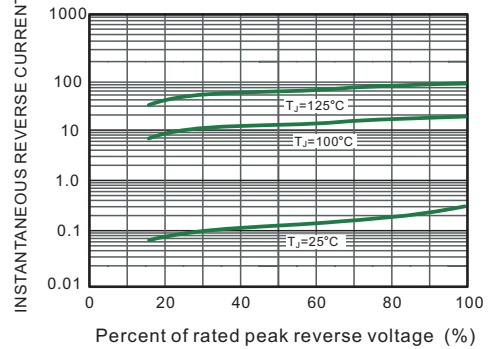


Fig.3 Typical Forward Characteristic

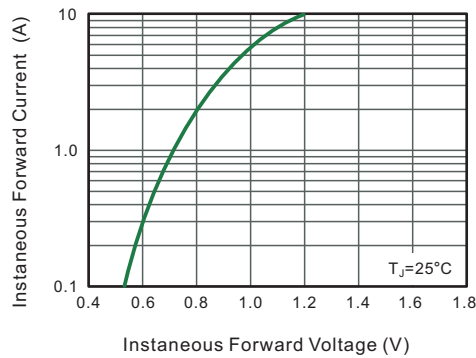


Fig.4 Typical Junction Capacitance

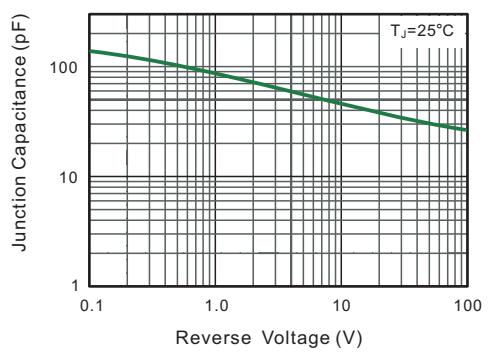


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

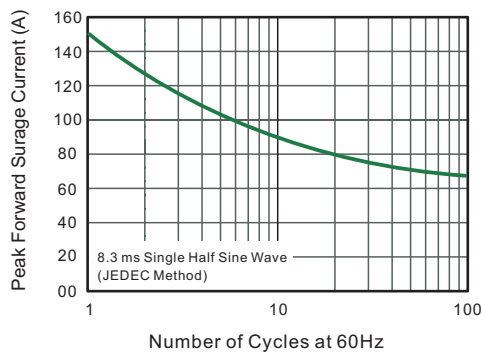
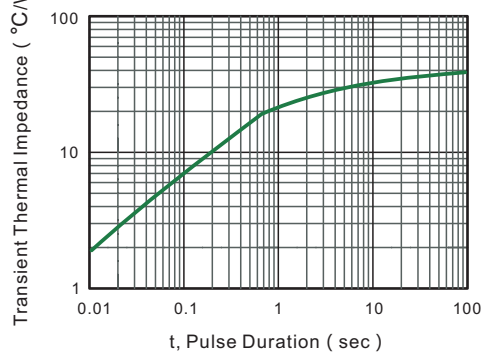
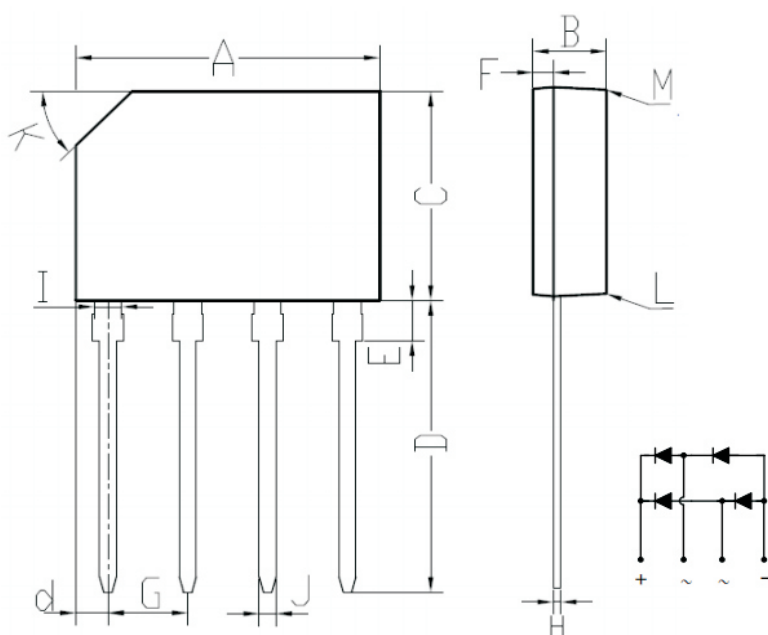


Fig.6- Typical Transient Thermal Impedance





KBP Package Outline Dimensions



KBP		
DIM.	MIN.	MAX.
A	14.25	14.75
B	3.35	3.65
C	10.20	10.60
D	14.25	14.73
d	1.40	1.70
E	1.80	2.20
F	0.80	1.10
G	3.56	4.06
H	0.35	0.55
I	1.22	1.42
J	0.76	0.86
K	2.7 x 45° (Typ)	
L	#	3°
M	#	2°
All Dimensions in millimeter		

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