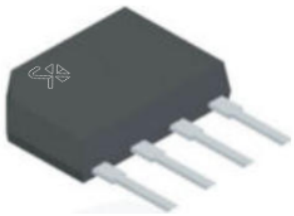
KBP3005-S5.5 THRU KBP310-S5.5

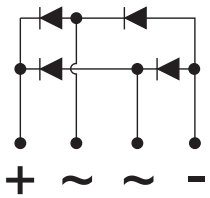
GLASS PASSIVATED BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 V

Forward Current - 3.0 A

KBP-S5.5





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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	KBP 3005 -S5.5	KBP 301 -S5.5	KBP 302 -S5.5	KBP 304 -S5.5	KBP 306 -S5.5	KBP 308 -S5.5	KBP 310 -S5.5	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=105°C (With heatsink) (Without heatsink)	$I_{(AV)}$	3.0 1.9							A
Peak Forward Surge Current 8.3ms single half sine-wave	I_{FSM}	55							A
Peak Forward Surge Current 1.0ms single half sine-wave	I_{FSM}	110							A
Maximum Forward Voltage at 3.0A DC	V_F	1.1							V
Maximum DC Reverse Current at rated Blocking Voltage T_a = 25°C T_a =125°C	I_R	5 500							uA
I^2t Rating for fusing (3ms≤t ≤8.3ms)	I^2t	17.5							A^2S
Typical Junction Capacitance per element (Note 1)	C_j	60							pF
Typical thermal resistance (Unit mounted on 30mmx30mmx1mm Copper plate heat sink.)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	30 10 12							°C/W
Typical thermal resistance (without hea tsink)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	40 12 18							°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

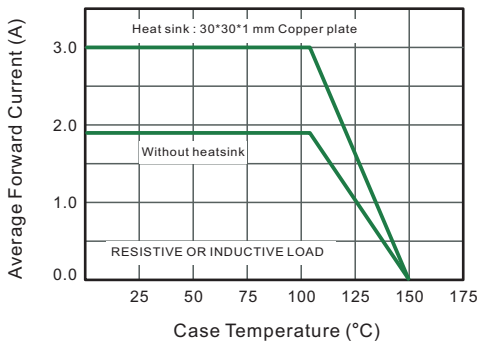


Fig.2 Typical Instaneous Reverse Characteristics

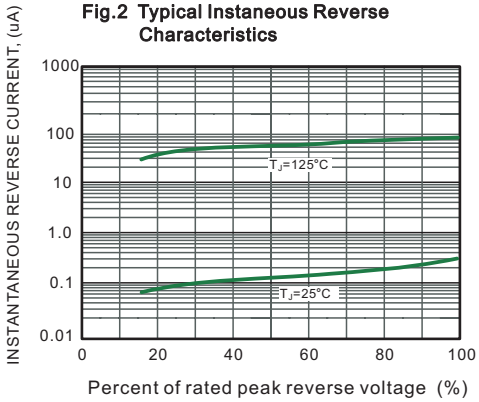


Fig.3 Typical Forward Characteristic

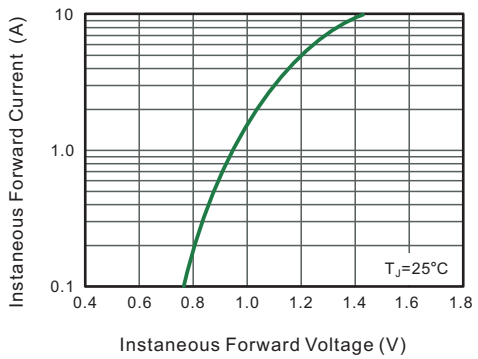


Fig.4 Typical Junction Capacitance

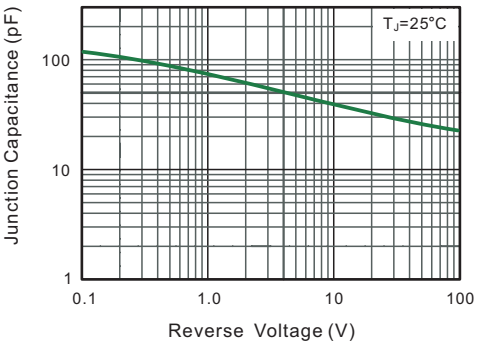


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

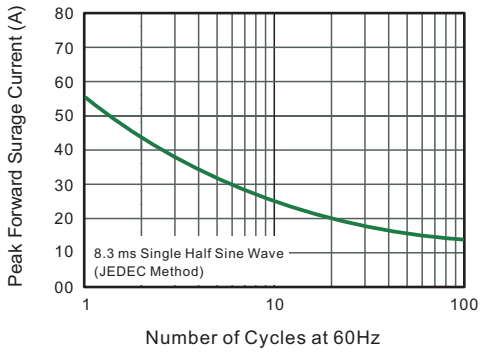
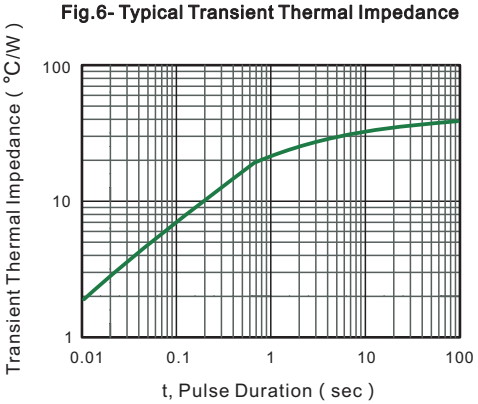
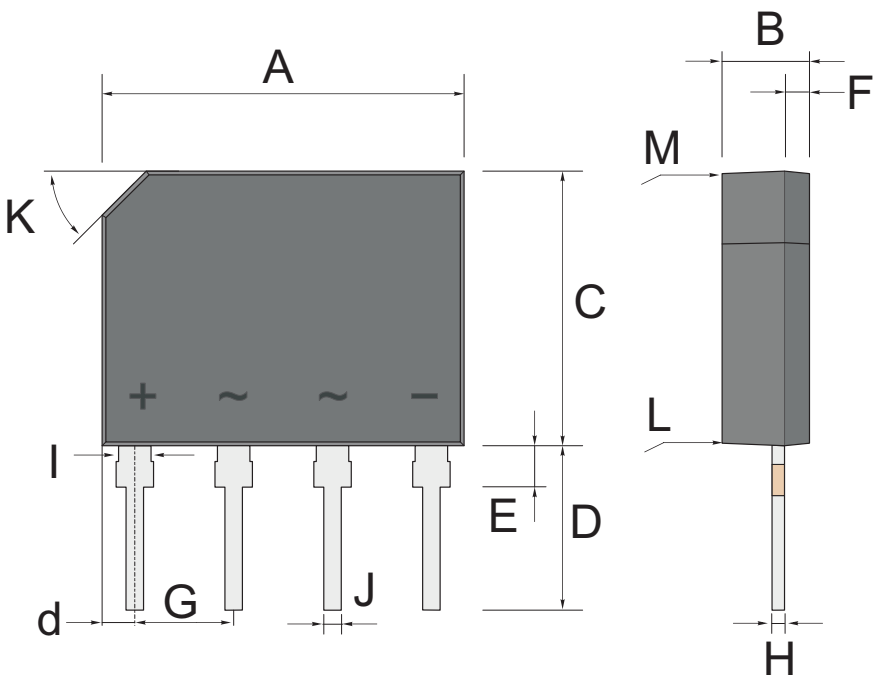


Fig.6- Typical Transient Thermal Impedance



KBP-S5.5 Package Outline Dimensions



Unit： mm

KBP-S5.5		
DIM.	MIN.	MAX.
A	14.25	14.75
B	3.35	3.65
C	10.20	10.60
D	5.0	6.0
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	2.7X45°(typ)	
L	#	3°
M	#	2°
All dimensions in millimrter		