



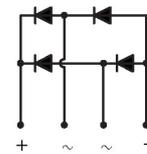
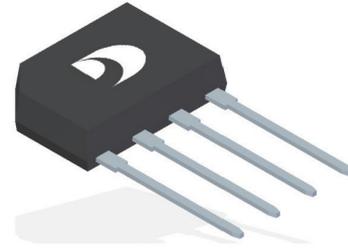
GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 3.0 Amperes

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

KBP



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°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	KBP 3005	KBP 301	KBP 302	KBP 304	KBP 306	KBP 308	KBP 310	UNIT
Maximum Repetitive 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 @ $T_C=105^\circ\text{C}$ (With heatsink) (Without heatsink)	$I_{(AV)}$	3.0 1.9						A	
Peak Forward Surge Current 8.3ms single half sine-wave @ $T_j = 25^\circ\text{C}$	I_{FSM}	55						A	
Peak Forward Surge Current 1.0ms single half sine-wave @ $T_j = 25^\circ\text{C}$	I_{FSM}	110						A	
Maximum Forward Voltage at 3.0A DC	V_F	1.1						V	
Maximum DC Reverse Current at rated Blocking Voltage @ $T_j=25^\circ\text{C}$ @ $T_j=125^\circ\text{C}$	I_R	5.0 500						μA	
I^2t Rating for fusing ($3\text{ms} \leq t \leq 8.3\text{ms}$)	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 heatsink.)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	10 12 30						$^\circ\text{C/W}$	
Typical thermal resistance (without heatsink)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	12 18 40						$^\circ\text{C/W}$	
Operation Temperature Range	T_J	-55 to +150						$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-55 to +150						$^\circ\text{C}$	

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



FIG.1- FORWARD CURRENT DERATING CURVE

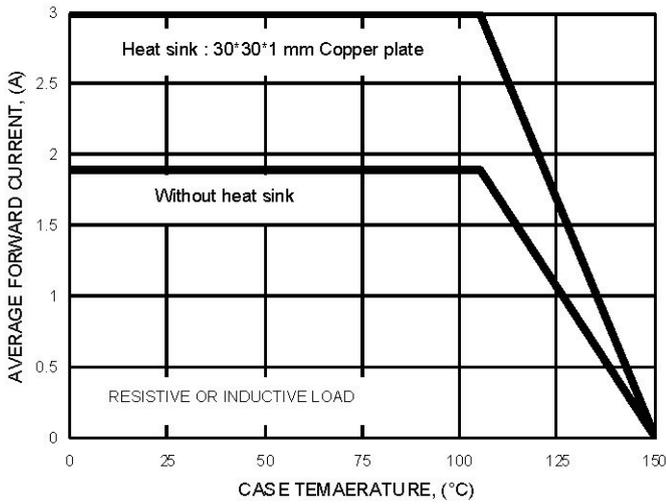


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

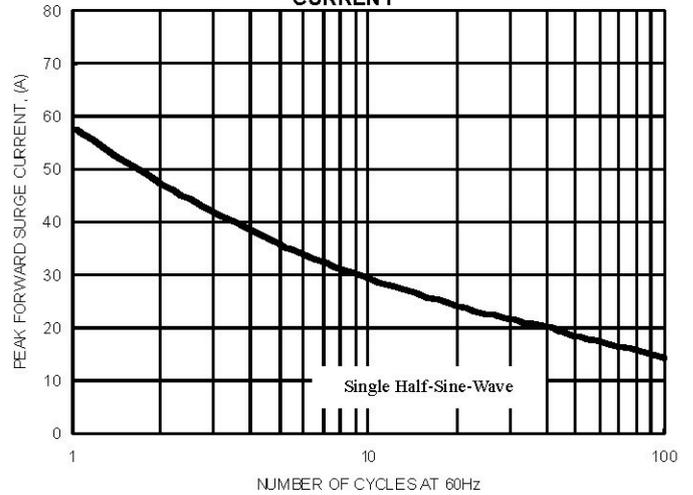


FIG.3- TYPICAL JUNCTION CAPACITANCE

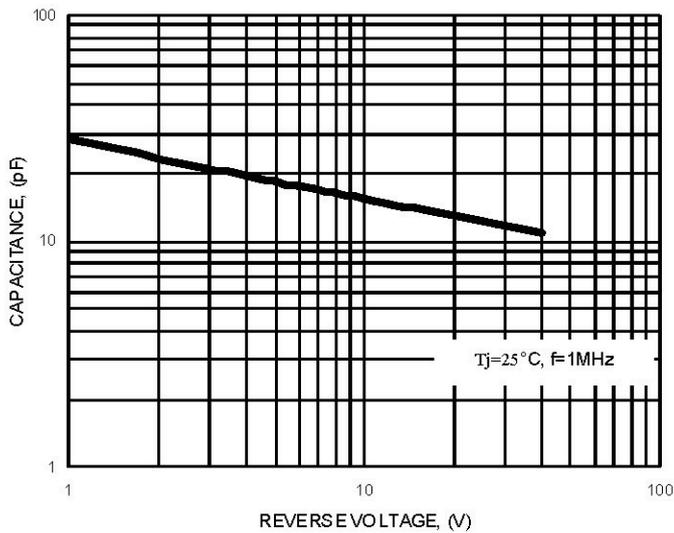


FIG.4- TYPICAL FORWARD CHARACTERISTICS

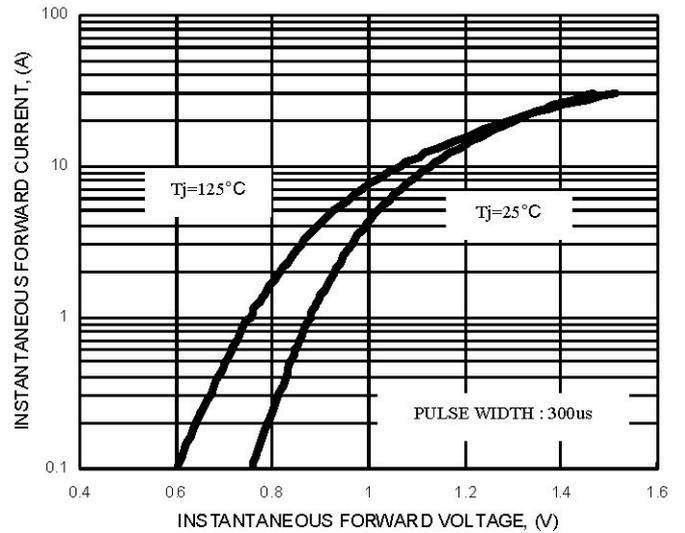


FIG.5- TYPICAL REVERSE CHARACTERISTICS

