

GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE – 400 to 1000 Volts
FORWARD CURRENT – 4.0 Ampere**

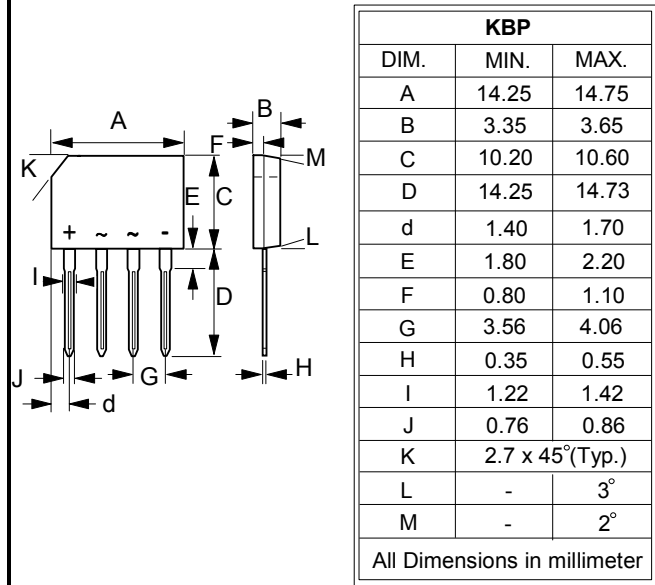
FEATURES

- 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
- UL recognized file #95060

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	KBP404G	KBP406G	KBP408G	KBP410G	UNIT
Device indicate code	Code	KBP404G	KBP406G	KBP408G	KBP410G	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C=105^\circ\text{C}$	$I_{(AV)}$	(With heatsink) 4.0 (Without heatsink) 2.0				A
Peak Forward Surge Current @ $T_j = 25^\circ\text{C}$ 8.3ms single half sine-wave @ $T_j = 125^\circ\text{C}$	I_{FSM}	130 110				A
Peak Forward Surge Current @ $T_j = 25^\circ\text{C}$ 1.0ms single half sine-wave @ $T_j = 125^\circ\text{C}$	I_{FSM}	260 220				A
Maximum Forward Voltage at 4.0A 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	50				A^2S
Typical Junction Capacitance per element (Note 1)	C_J	40				pF
Typical thermal resistance (Unit mounted on 75mmx75mmx1.6mm Copper plate heatsink.)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	6 8 15				$^\circ\text{C/W}$
Typical thermal resistance (without heatsink)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	14 20 40				$^\circ\text{C/W}$
Operation and Storage Temperature Range	T_J, T_{STG}	-55 to 150				$^\circ\text{C}$

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

REV. 8, Sep-2012, KBDE05

FIG.1- FORWARD CURRENT DERATING CURVE

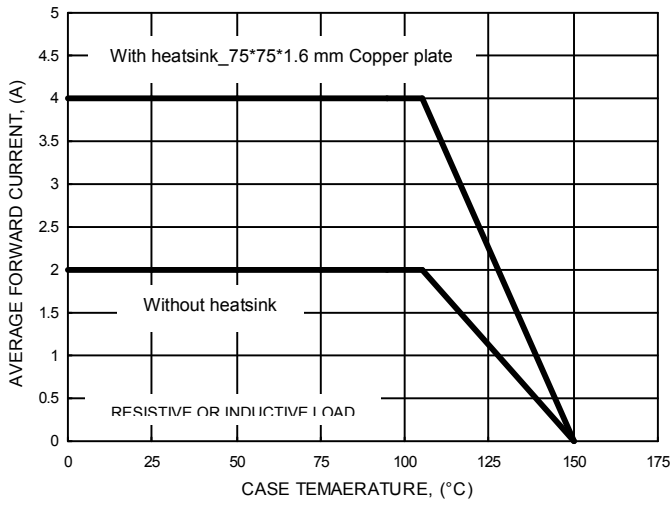


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

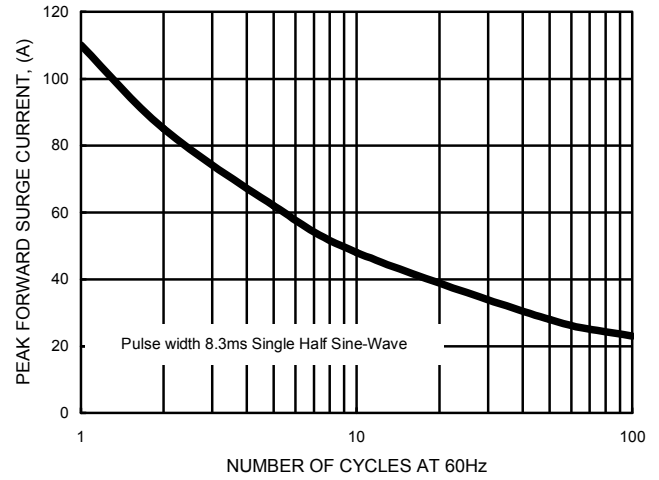


FIG.3- TYPICAL JUNCTION CAPACITANCE

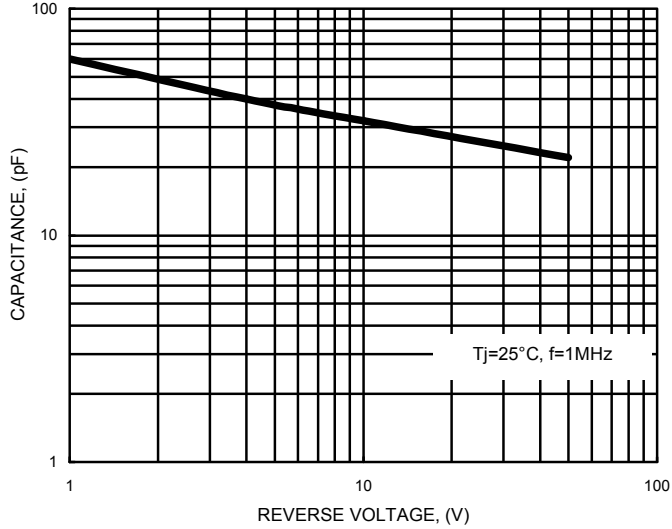


FIG.4- TYPICAL FORWARD CHARACTERISTICS

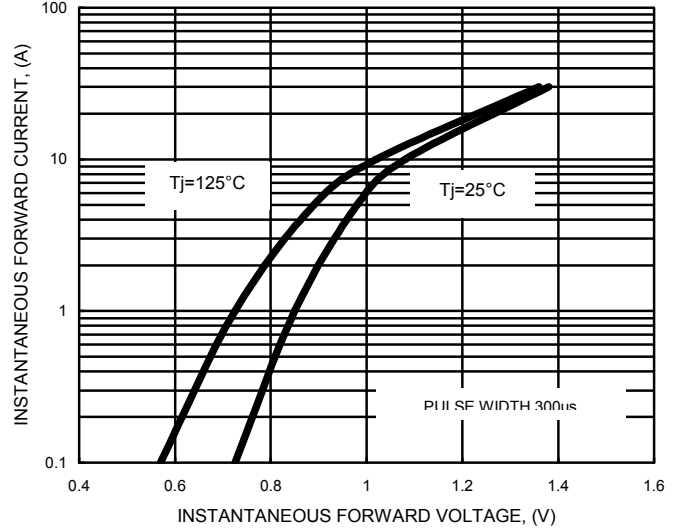


FIG.5- TYPICAL REVERSE CHARACTERISTICS

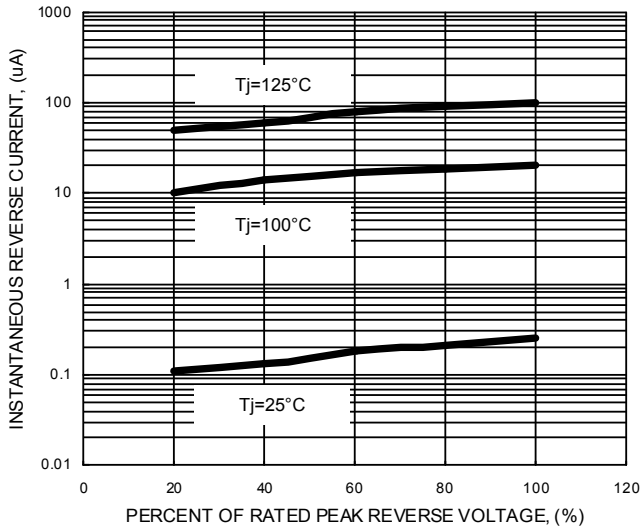
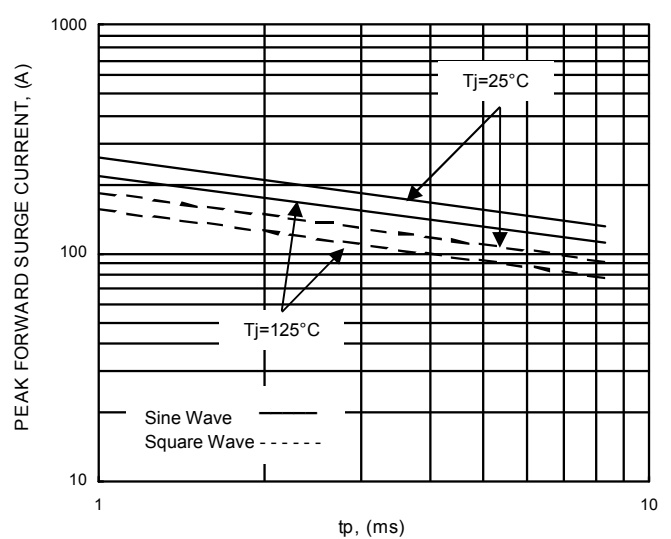


FIG.6- NON-REPETITIVE SURGE CURRENT



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