MEI

Lead Free RoHS Compliant

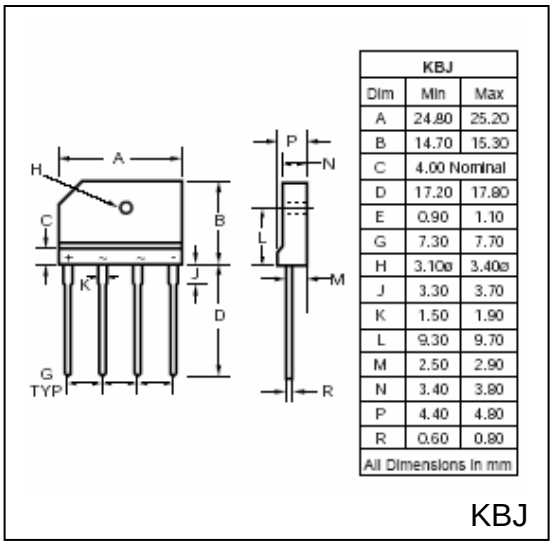
SINGLE PHASE GLASS PSSIVATED BRIDGE RECTIFIER

KBJ601G THRU KBJ607G

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **6.0 Ampere**

FEATURES

- Plastic package has UL flammability Classification 94V – 0
- Glass passivated chip junction
- High case dielectric strength of 1500 V_{RMS}
- High surge current capability
- High temperature soldering guaranteed: 260 ^{O}C /10 seconds, 0.375" (9.5mm) lead length



KBJ		
Dim	Min	Max
A	24.80	25.20
B	14.70	15.30
C	4.00 Nominal	
D	17.20	17.80
E	0.90	1.10
G	7.30	7.70
H	3.10ø	3.40ø
J	3.30	3.70
K	1.50	1.90
L	9.30	9.70
M	2.50	2.90
N	3.40	3.80
P	4.40	4.80
R	0.60	0.80
All Dimensions in mm		

KBJ

MECHANICAL DATA

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750 Method 2026
- Mounting position: any (Note 2)
- Mounting Torque: 6 in-lbs max.
- Weight: 0.15 ounce, 4.0 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	KBJ 601G	KBJ 602G	KBJ 603G	KBJ 604G	KBJ 605G	KBJ 606G	KBJ 607G	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, At T_C = 100^{O}C	$I_{(AV)}$	6.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	175							Amps
Rating for Fusing (t<8.3mS)	I^2t	120							A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element 3.0A	V_F	1.0							Volts
Maximum DC Reverse Current at Rated T_A = 25 ^{O}C	I_R	5.0							µA
DC Blocking Voltage per element T_A = 125 ^{O}C		500							
Typical Junction Capacitance, per leg (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	211				94			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	2.2							^{O}C/W
Operating Junction Temperature Range	T_J	(-55 to +150)							^{O}C
Storage Temperature Range	T_{STG}	(-55 to +150)							^{O}C

Notes:

1. Unit mounted on 2.6" x 1.4" x 0.06" (6.5cm x 3.5cm x 0.15cm) AL plate
2. Recommended mounting position is to bolt down on heatsink using #6 screw and silicon thermal compound for maximum heat transfer

RATINGS AND CHARACTERISTIC CURVES KBJ601G THRU KBJ607G

Fig. 1 – Derating Curve
Output Rectified Current

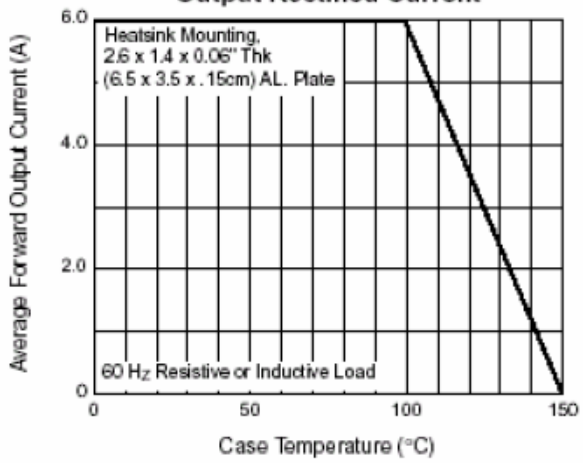


Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current Per Leg

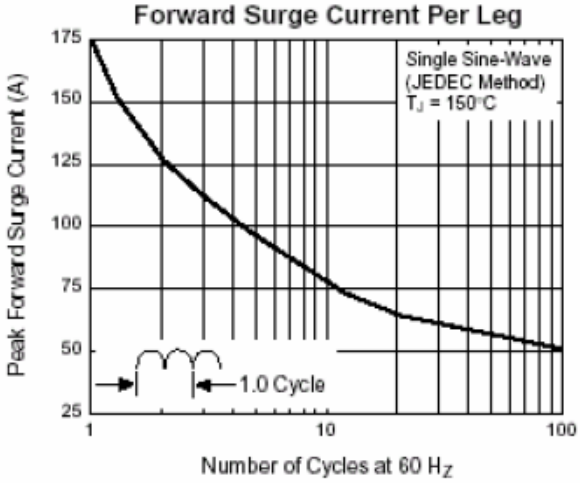


Fig. 3 – Typical Forward
Characteristics Per Leg

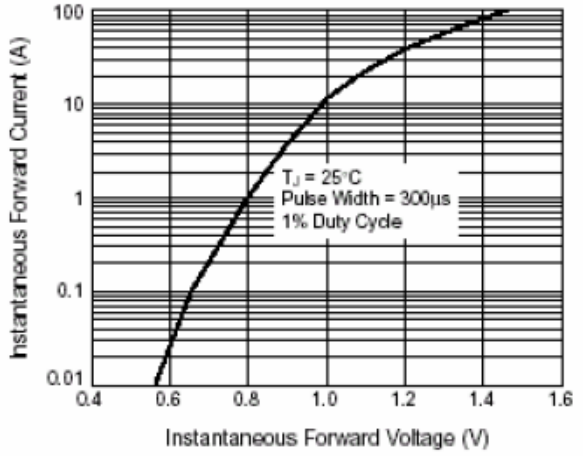


Fig. 4 – Typical Reverse Leakage
Characteristics Per Leg

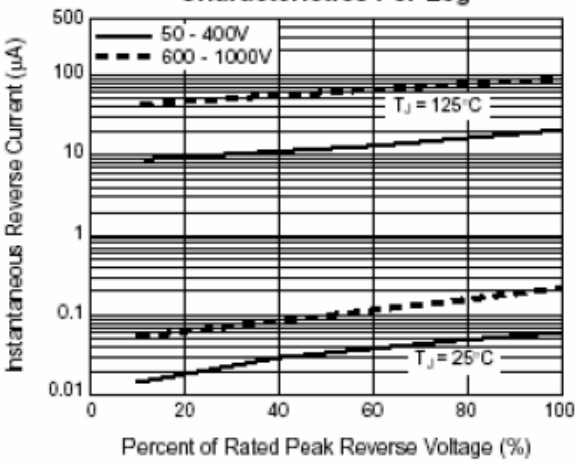


Fig. 5 – Typical Junction
Capacitance Per Leg

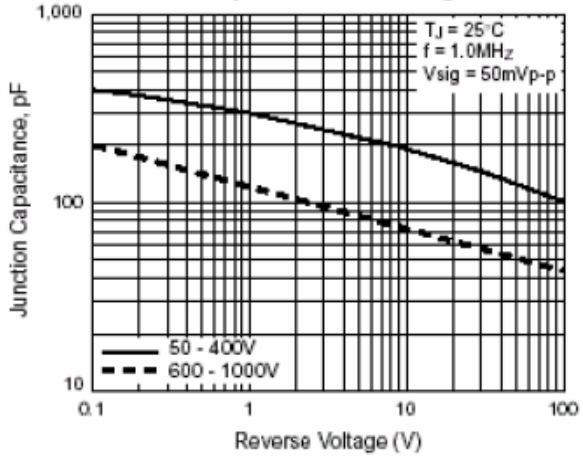


Fig. 6 – Typical Transient
Thermal Impedance