



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

KBJ601G THRU KBJ607G

VOLTAGE RANGE
CURRENT

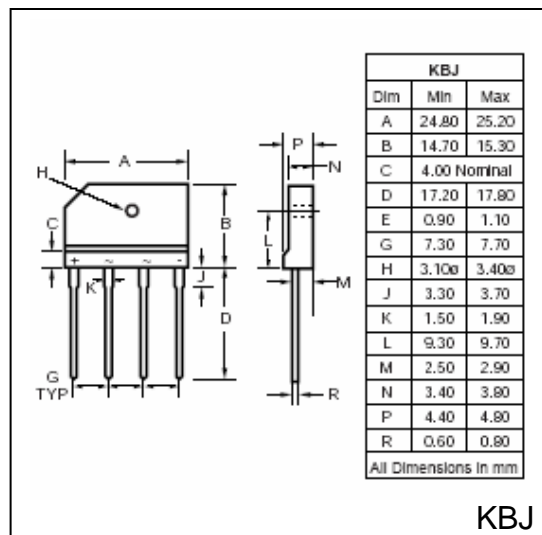
50 to 1000 Volts
6.0 Ampere

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 °C /10 seconds, 0.375" (9.5mm) lead length

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°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°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 ² t	120							A ² s
Maximum Instantaneous Forward Voltage drop per Bridge element 3.0A	V _F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I _R	5.0							μA
T _A = 25 °C T _A = 125 °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 _{θJA}	2.2							°C/W
Operating Junction Temperature Range	T _J	(-55 to +150)							°C
Storage Temperature Range	T _{STG}	(-55 to +150)							°C

Notes:

- Unit mounted on 2.6" x 1.4" x 0.06" (6.5cm x 3.5cm x 0.15cm) AL plate
- 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

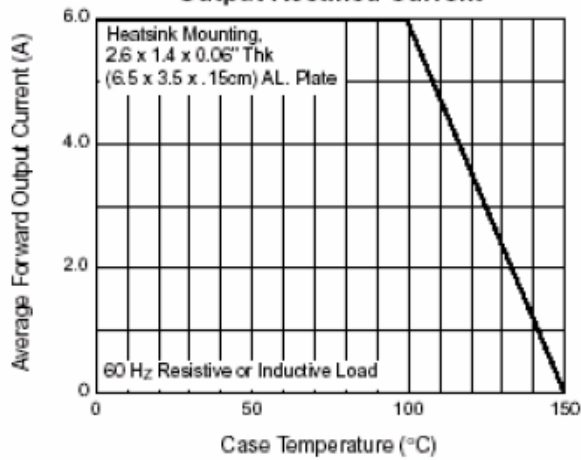


Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current Per Leg

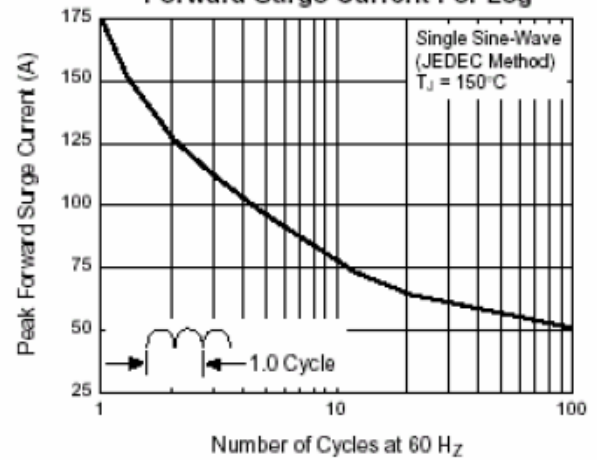


Fig. 3 – Typical Forward
Characteristics Per Leg

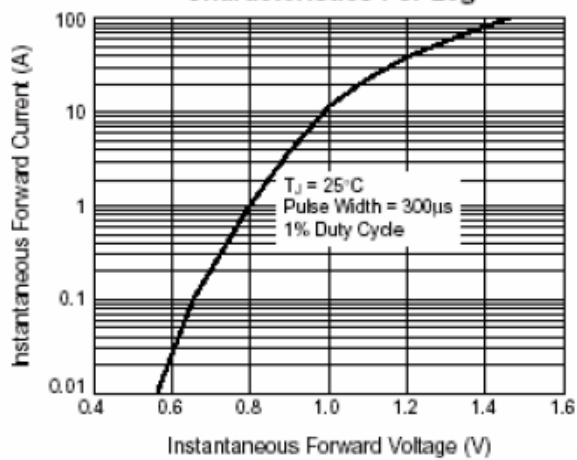


Fig. 4 – Typical Reverse Leakage
Characteristics Per Leg

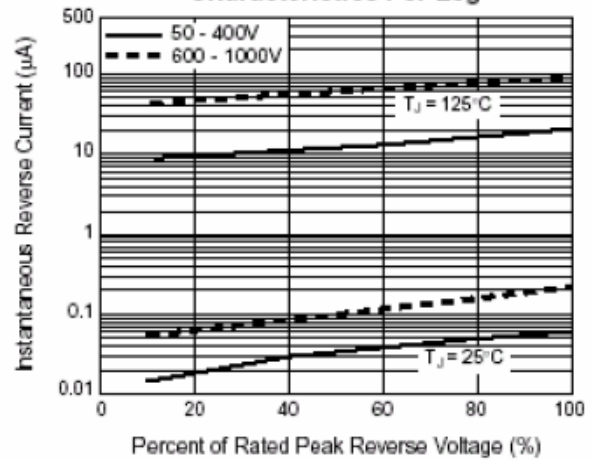


Fig. 5 – Typical Junction
Capacitance Per Leg

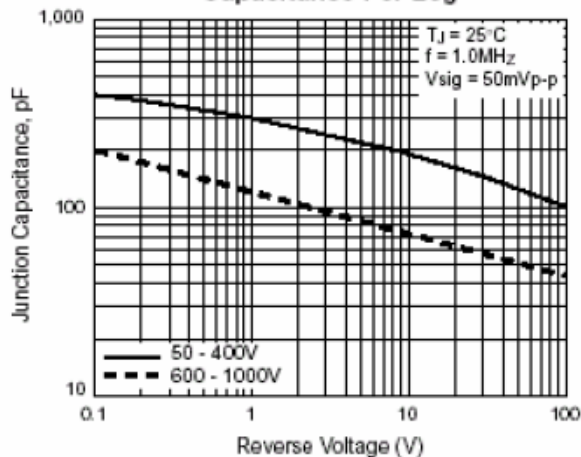


Fig. 6 – Typical Transient
Thermal Impedance

