



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

KBJ401G THRU KBJ407G

VOLTAGE RANGE
CURRENT

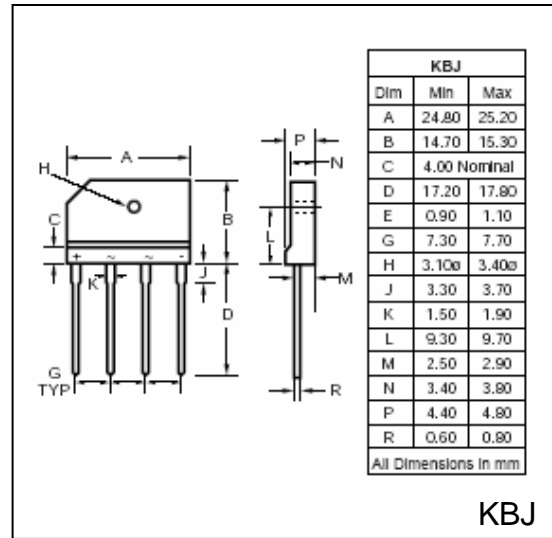
50 to 1000 Volts
4.0 Ampere

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 3)
- 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 401G	KBJ 402G	KBJ 403G	KBJ 404G	KBJ 405G	KBJ 406G	KBJ 407G	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, @ T _C = 100°C (Note 1) @ T _A = 40°C (Note 2)	I _(AV)	4.0 3.0						Amps	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	150						Amps	
Rating for Fusing (t<8.3mS)	I ² t	93						A ² s	
Maximum Instantaneous Forward Voltage drop per Bridge element 2.0A	V _F	1.0						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element T _A = 25 °C T _A = 125 °C	I _R	5.0 500						µA	
Typical Junction Capacitance, per leg (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C _J	100				45			pF
Typical Thermal Resistance (Note 1)	R _{θJA}	22						°C/W	
Operating Junction Temperature Range	T _J	(-55 to +150)						°C	
Storage Temperature Range	T _{STG}	(-55 to +150)						°C	

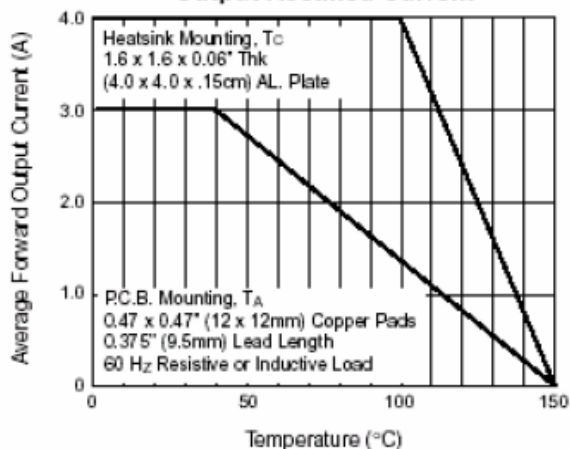
Notes:

1. Unit mounted on 1.6" x 1.6" x 0.06" (4cm x 4cm x 0.15cm) AL plate
2. Unit mounted on PCB with 0.5" x 0.5" (12mm x 12mm) copper pads and 0.375 (9.5mm) lead length
3. Recommended mounting position is to bolt down on heatsink using #6 screw and silicon thermal compound for maximum heat transfer

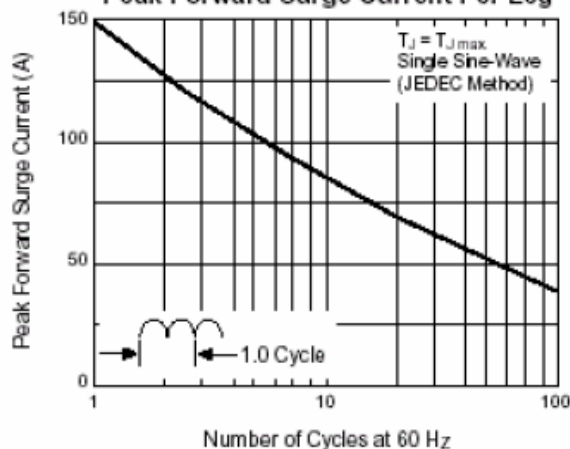


RATINGS AND CHARACTERISTIC CURVES KBJ401G THRU KBJ407G

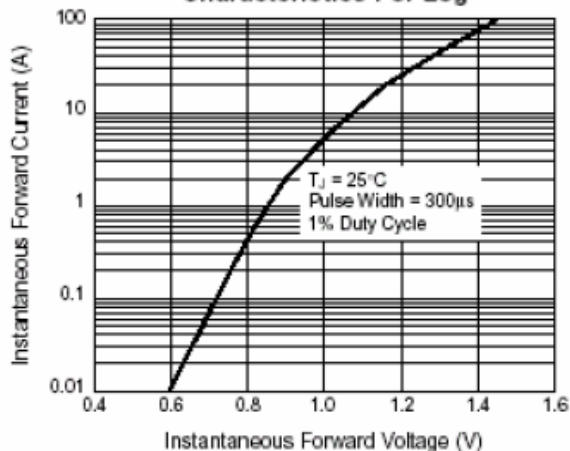
**Fig. 1 — Derating Curve
Output Rectified Current**



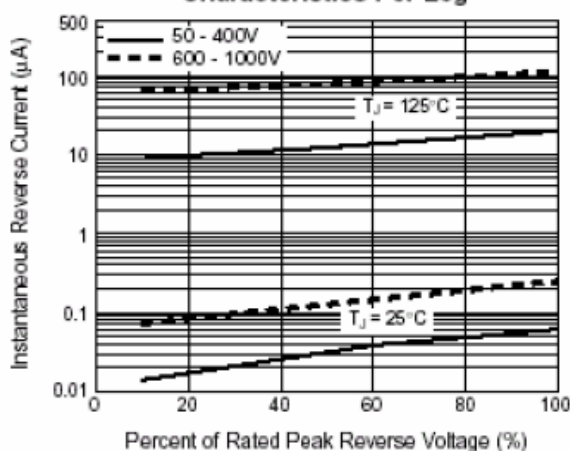
**Fig. 2 — Maximum Non-Repetitive
Peak Forward Surge Current Per Leg**



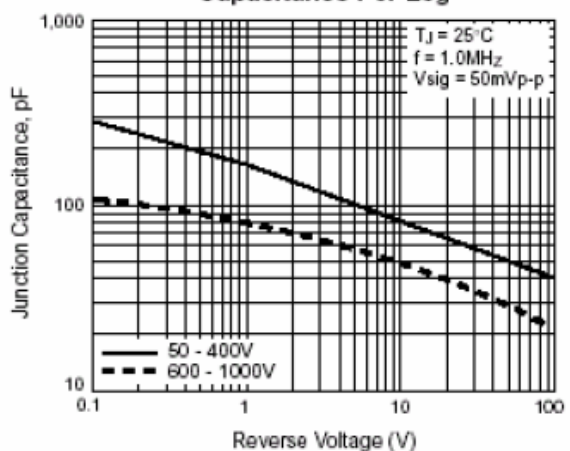
**Fig. 3 — Typical Forward
Characteristics Per Leg**



**Fig. 4 — Typical Reverse Leakage
Characteristics Per Leg**



**Fig. 5 — Typical Junction
Capacitance Per Leg**



**Fig. 6 — Typical Transient
Thermal Impedance**

