



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.  
TEL: 2790-0314 FAX: 2790-0206



SINGLE-PHASE BRIDGE RECTIFIER

KBL005 THRU KBL10

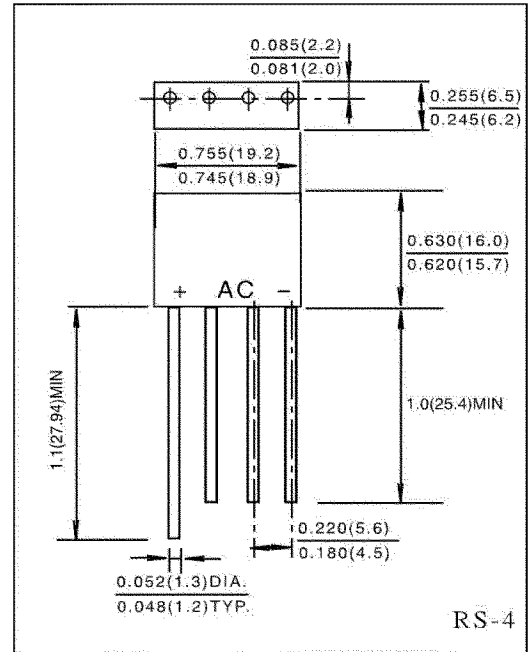
VOLTAGE RANGE 50 to 1000 Volts  
CURRENT 4.0 Ampere

**FEATURES**

- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:  
260°C/10 second, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.

**MECHANICAL DATA**

- Case: Transfer molded plastic
- Terminal: Lead solderable per MIL - STD - 202E method 208C
- Mounting Position: Any
- Weight: 0.22 ounce, 6.21 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	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	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 Output Current, at $T_C = 50^\circ C$	$I_{(AV)}$	4.0							Amps
at $T_A = 50^\circ C$		3.0							
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method )	$I_{FSM}$	200							Amps
Rating for Fusing (t<8.3ms)	$I^2t$	166							$A^2s$
Maximum Instantaneous Forward Voltage Drop per bridge element at 4.0A	$V_F$	1.0							Volts
Maximum DC Reverse Current at rate $T_A = 25^\circ C$	$I_R$	10							$\mu$ Amps
DC blocking voltage per element $T_A = 100^\circ C$		1.0							mAmps
Typical Junction Capacitance(Note 1)	$C_j$	105							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20							$^\circ C/W$
Operating Temperature Range	$T_J$	(-65 to +150)							$^\circ C$
Storage Temperature Range	$T_{STG}$	(-65 to +150)							

**NOTES:**

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 3.0" X 3.0" X 0.11" thick (7.5 X 7.5 X 0.3cm) Al. plate.
3. P.C Board mounted with 0.5" X 0.5" (12 X 12mm) copper pad, 0.375" (9.5mm) lead length



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RATINGS AND CHARACTERISTIC CURVES KBL005 THRU KBL10

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

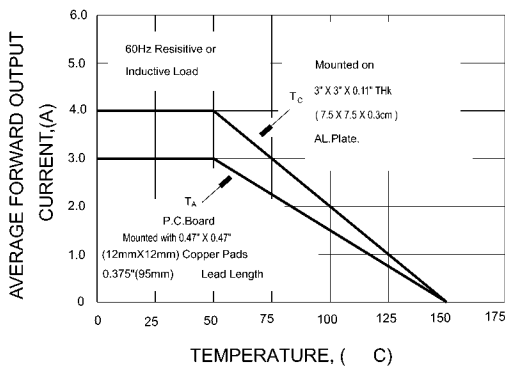


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

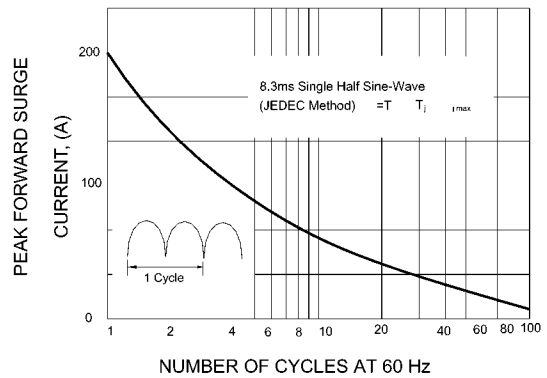


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

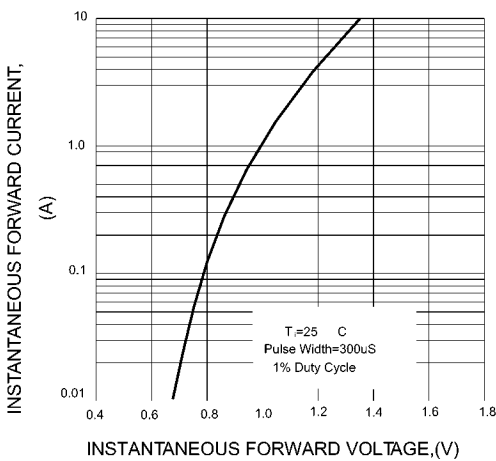


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

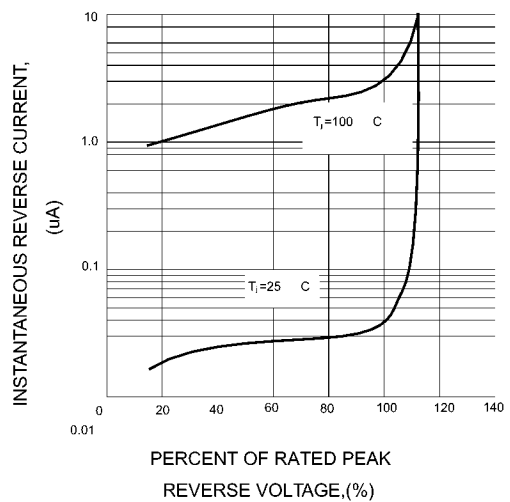


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

