

# Kingtronics®

# KBL4005 THRU KBL410

## SINGLE-PHASE BRIDGE RECTIFIER

**VOLTAGE RANGE** 50 to 1000 Volts    **CURRENT** 4.0 Ampere

### FEATURES

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.  
Electrically isolated base-1500 Volts.

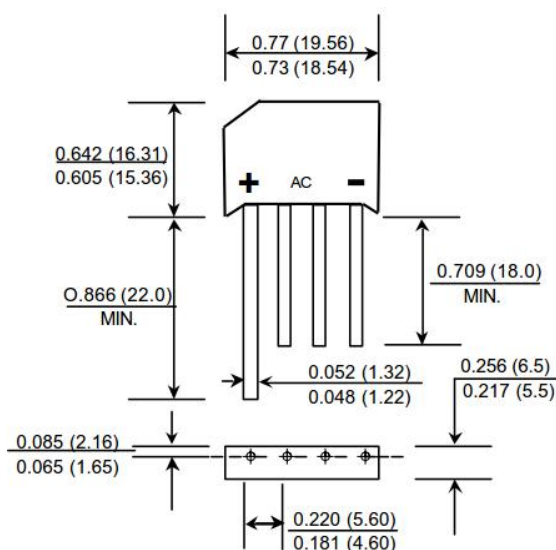
### MECHANICAL DATA

Case: Transfer molded plastic.  
Terminal: Lead solderable per MIL - STD - 202E  
method 208°C.  
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%

### KBL



Dimensions in inches and (millimeters)

PARAMETER	SYMBOL	KBL4005	KBL401	KBL402	KBL404	KBL406	KBL408	KBL410	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Current at 40°C $T_A$ (Note 1)	$I_{(AV)}$	4.0							A
Peak Forward Surge Current 8.3ms single half sine-wave Super Imposed on Rated Load	$I_{FSM}$	150							A
Maximum forward Voltage Drop Per Element at 4.0A Peak	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking voltage	$I_R$	5.0							$\mu A$
Maximum Reverse Current at Rated DC Blocking voltage and 150°C $T_A$	$I_R$	1.0							mA
Operating Temperature Range $T_J$	$T_J$	-65 to +125							°C
Storage Temperature Range $T_A$	$T_{STG}$	-65 to +150							°C

1- Mounting conditions, 0.5" lead length maximum.

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## RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

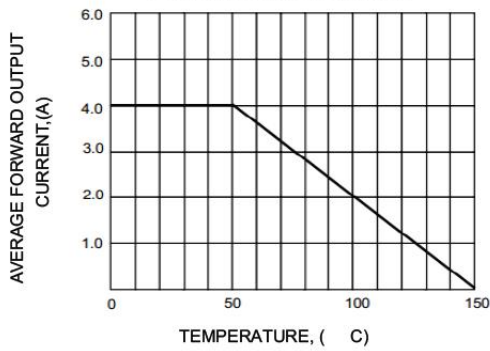


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

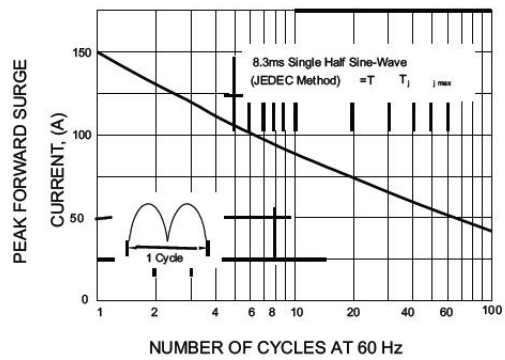


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

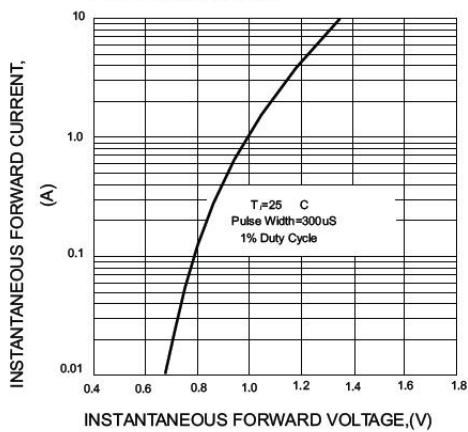


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

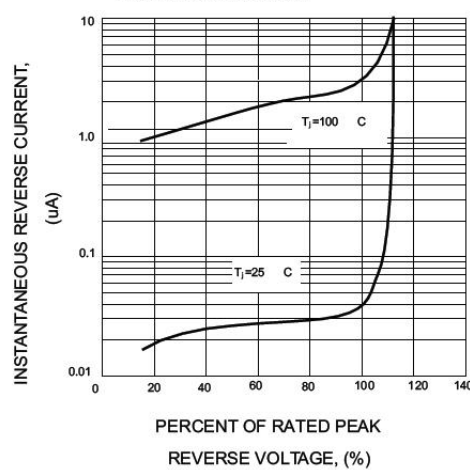
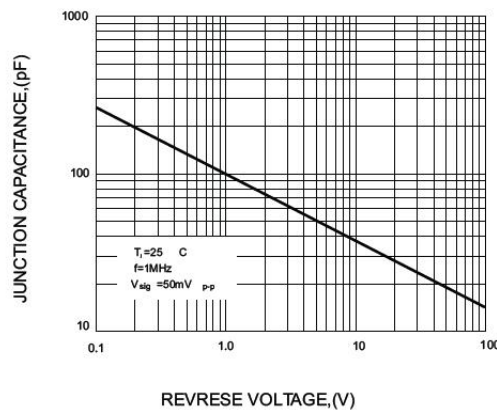


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT



Note: Specifications are subject to change without notice.