

# KBL005/RS401 THRU KBL10/RS407

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 4.0A

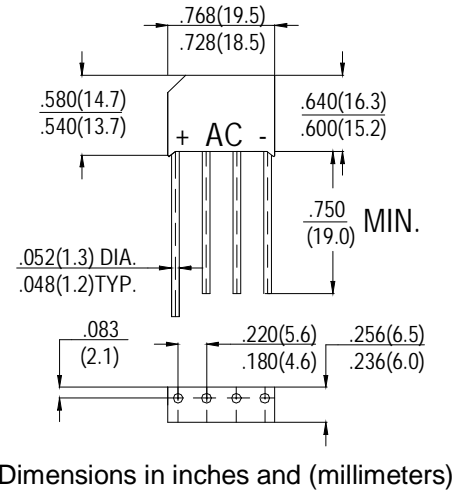
### FEATURES

- Ideal for printed circuit board
- Surge overload ratings-150 Amperes
- Molded structure

### MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL 94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Symbols molded or marked on body
- **Mounting position:** Any
- **Weight:** 4.8 grams

### KBL



## 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%.

	SYMBOL	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	units
		RS401	RS402	RS403	RS404	RS405	RS406	RS407	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge 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 rectified Output Current at $T_A=75^\circ\text{C}$	$I_o$	4.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150							A
Maximum Forward Voltage Drop per element at 2.0A DC	$V_F$	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	@ $T_A=25^\circ\text{C}$							$\mu\text{A}$
		@ $T_A=100^\circ\text{C}$							
$I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )	$I^2t$	93							$\text{A}^2\text{S}$
Typical Junction Capacitance (Note 1)	$C_J$	40							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	19							$^\circ\text{C/W}$

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient with units mounted on 3.0×3.0×0.11" (7.5×7.5×0.3mm) AL plate