

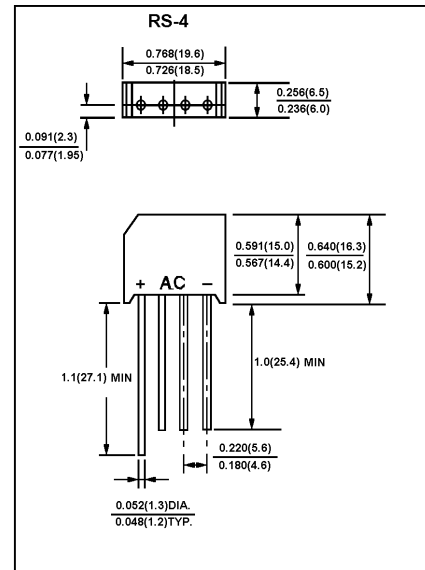
**SINGLE-PHASE BRIDGE RECTIFIER**  
**VOLTAGE RANGE 50 to 1000 Volts**  
**CURRENT 4.0 Ampere**

### FEATURES

- \* Glass Passivated chip junction
- \* High forward surge current capability
- \* Ideal for printed circuit board
- \* High temperature soldering guaranteed:  
260°C/10 second at 5 lbs. (2.3kg) tension

### MECHANICAL DATA

- \* Case: Transfer molded plastic
- \* Epoxy: UL94V-O rate flame retardant
- \* Terminals : Lead Solderable Per MIL-STD-202E method 208C
- \* Polarity : As Marking on Body
- \* Mounting Position: Any
- \* Weight : 0.22 ounce, 6.21 gram



*Plating pb free is indicated by box*

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- \* Rating at 25 ambient temperature unless otherwise specified
- \* Single phase, half wave. 60Hz, resistive or inductive load.
- \* For capacitive load derate current by 20 %

Characteristic		Symbol	KBL005	KBL01	KBL02	KBL04	KBL06	KBL08	KBL10	Unit
Peak Repetitive Reverse Voltage	Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage		$V_{RWM}$								
DC Blocking Voltage		$V_R$								
RMS Reverse Voltage		$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Forward Rectified Output Current, at	$T_C=50$ (Note 2)	$I_{O(AV)}$	4.0							A
	$T_A=50$ (Note 3)		3.0							
Non-Repetitive Peak Surge Current 8.3 ms Single half sine-wave superimposed on rated load ( JEDEC Method)		$I_{FSM}$	200							A
Forward Voltage (per element) ( $I_F = 2.0$ Amp)		$V_{FM}$	1.0							V
Maximum DC reverse current at rated DC blocking voltage per element	$T_A = 25$	$I_R$	10							uA
	$T_A = 100$		1.0							mA
Rating for Fusing( $t < 8.3$ ms)		$I^2t$	166							$A^2s$
Typical Junction Capacitance per element (Note1)		$C_J$	105							pF
Typical Thermal Resistance (note 3)		$R_{\theta JA}$	20							k/W
Operating and Storage Temperature Range		$T_J, T_{stg}$	-65 to +150							

Note: 1 Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

2. Unit mounted on 3.0"×3.0"×0.11" thick (7.5×7.5×0.3 cm) AL, plate.

3. P.C. board mount with 0.5"×0.5" (12×12mm) copper pad. 0.375" (9.5 mm) lead length.

# KBL005 thru KBL10

FIG-1 FORWARD CURRENT DERATING CURVE

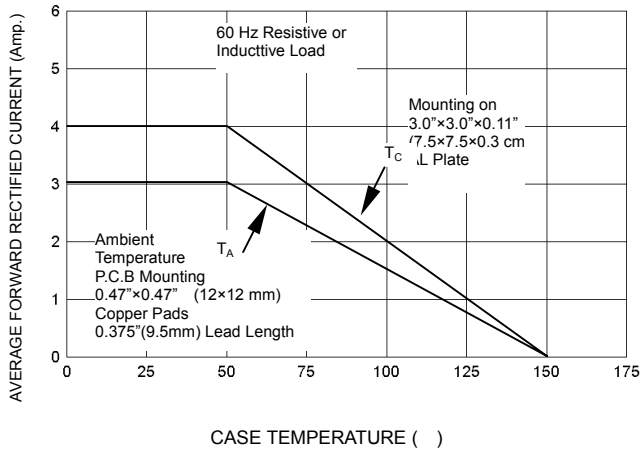
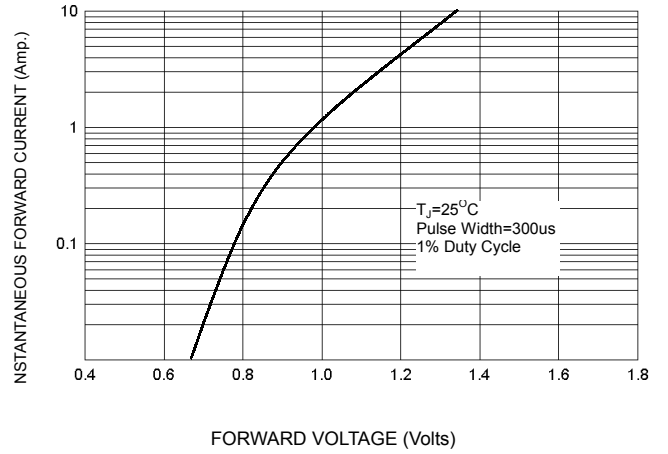


FIG-2 TYPICAL FORWARD CHARACTERISTICS



$T_j=25^{\circ}\text{C}$   
 $f=1\text{MHz}$

FIG-3 PEAK FORWARD SURGE CURRENT

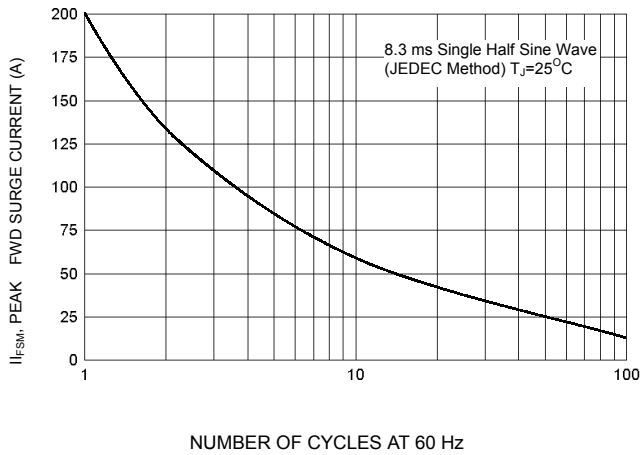


FIG-4 TYPICAL JUNCTION CAPACITANCE

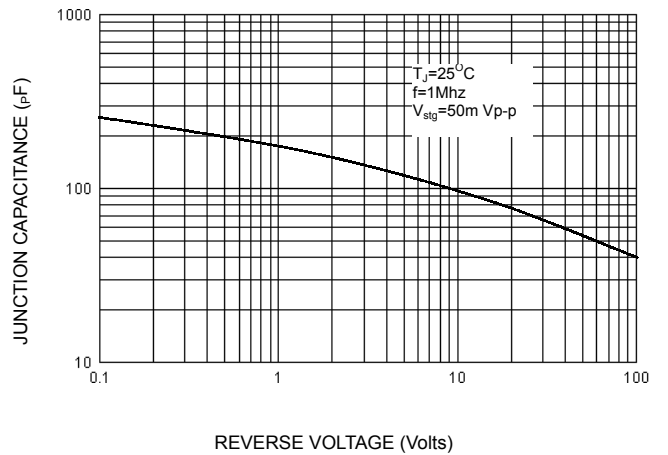


FIG-5 TYPICAL REVERSE CHARACTERISTICS

