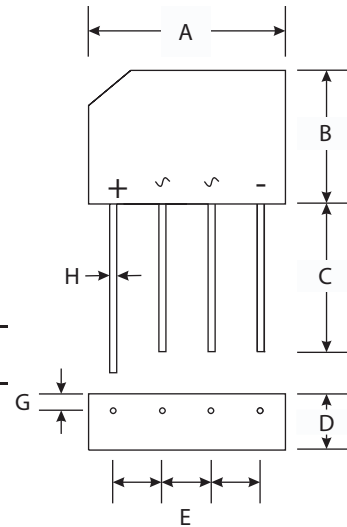


## KBL3005 THRU KBL307

CURRENT 3.0 Amperes  
VOLTAGE 50 to 1000 Volts

### Features

- High case dielectric Strength of 1500V
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Ideal for Printed Circuit Board Application
- Plastic Material - UL Flammability Classification 94V-0



KBL		
Dim	Min	Max
A	18.50	19.50
B	15.40	16.40
C	19.00	—
D	6.20	6.50
E	4.60	5.60
G	1.50	2.00
H	1.30 Typical	
All Dimensions in mm		

### Mechanical Data

- Case : Molded Plastic
- Terminals : Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity : Symbols Marked on Case
- Approx. Weight : 5.6 grams
- Marking : Type Number

### 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 by 20%)

	Symbols	KBL 3005	KBL 301	KBL 302	KBL 304	KBL 305	KBL 306	KBL 307	Units
Peak Repetitive Reverse Voltage	$V_{RMM}$								Volts
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking voltage	$V_R$								
RMS Reverse voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Average Rectified Output Current @ $T_C=75^\circ C$	$I_o$	3.0							Amps
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150							Amps
Forward Voltage per element @ $I_F=3.0 A$	$V_{FM}$	1.1							Volts
Peak Reverse Current at Rated DC Blocking Voltage	@ $T_C=25^\circ C$	10							$\mu A$
	@ $T_C=100^\circ C$	1.0							mA
$I^2t$ Rating for Fusing ( $t < 8.3ms$ ) (Note 2)	$I^2t$	166							$A^2s$
Typical Thermal Resistance, Junction to Case (Note 1)	$R_{\theta JA}$	19							$^\circ C/W$
Operating and Storage Temperature Range	$T_J$ $T_{STG}$	-55 to +150							$^\circ C$

#### Notes:

- (1) Thermal Resistance from junction to case per element mounted on PC board with 13 x 13 x 0.03mm land areas.
- (2) Non-repetitive for  $t > 1ms$  and  $< 8.3ms$ .

## RATING AND CHARACTERISTIC CURVES KBL3005 THRU KBL307

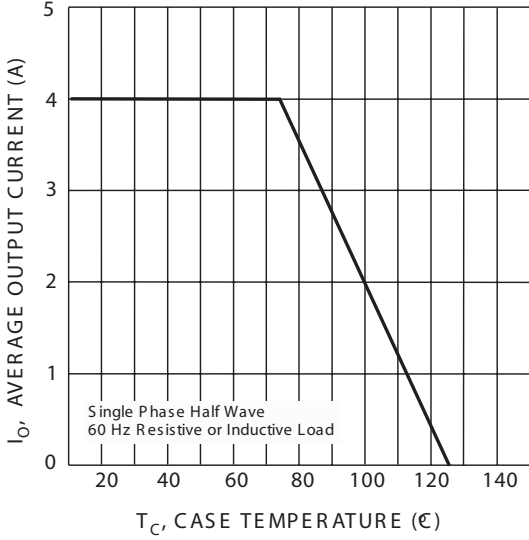


Fig. 1 Forward Current Derating Curve

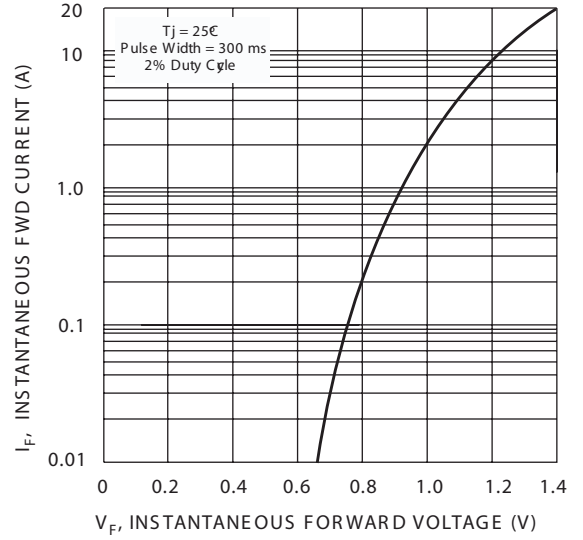


Fig. 2 Typical Forward Characteristics

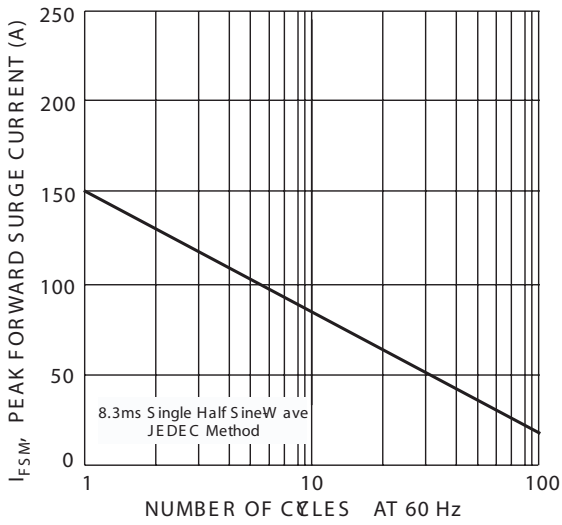


Fig. 3 Max NonRepetitive Peak Fwd Surge Current

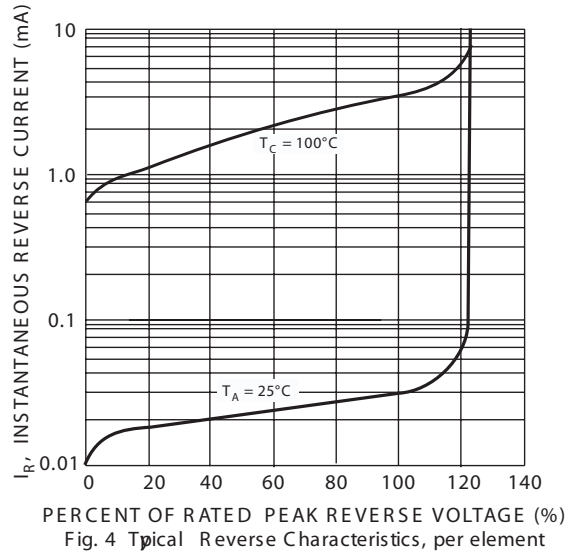


Fig. 4 Typical Reverse Characteristics, per element