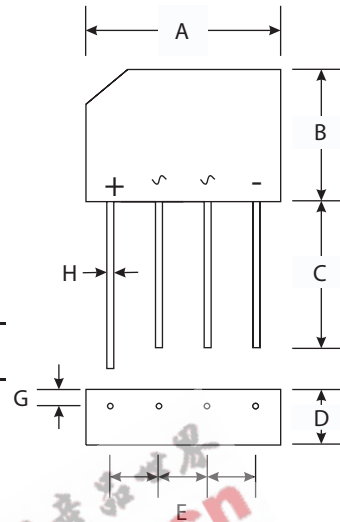


## KBL4005 THRU KBL407

CURRENT 4.0 Amperes  
VOLTAGE 50 to 1000 Volts

### Features

- High case dielectric Strength of 1500V
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 150A 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 4005	KBL 401	KBL 402	KBL 404	KBL 405	KBL 406	KBL 407	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking voltage	$V_{RMM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	800	1000	Volts
RMS Reverse voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Average Rectified Output Current @ $T_c=75^\circ\text{C}$	$I_o$	4.0							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 @ $I_F=3.0\text{ A}$	$V_{FM}$	1.1							Volts
Peak Reverse Current at Rated DC Blocking voltage	@ $T_c=25^\circ\text{C}$	10							$\mu\text{ A}$
	@ $T_c=100^\circ\text{C}$	1.0							mA
$I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ ) (Note 2)	$I^2t$	166							$\text{A}^2\text{s}$
Typical Thermal Resistance, Junction to Case (Note 1)	$R\theta_{JA}$	19							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j$ $T_{STG}$	-65 to +125							$^\circ\text{C}$

#### 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  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .

## RATING AND CHARACTERISTIC CURVES KBL4005 THRU KBL4007

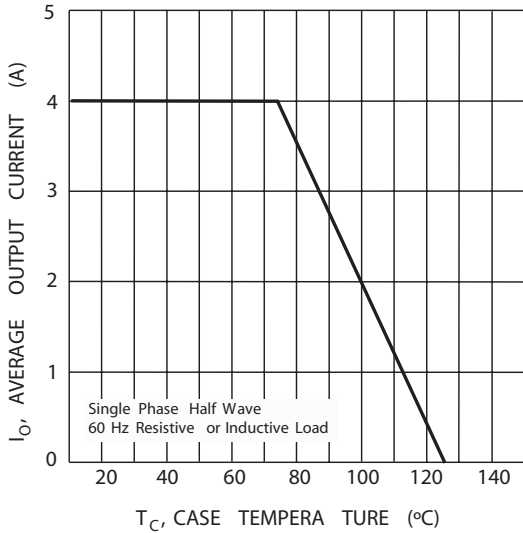


Fig. 1 Forward Current Derating Curve

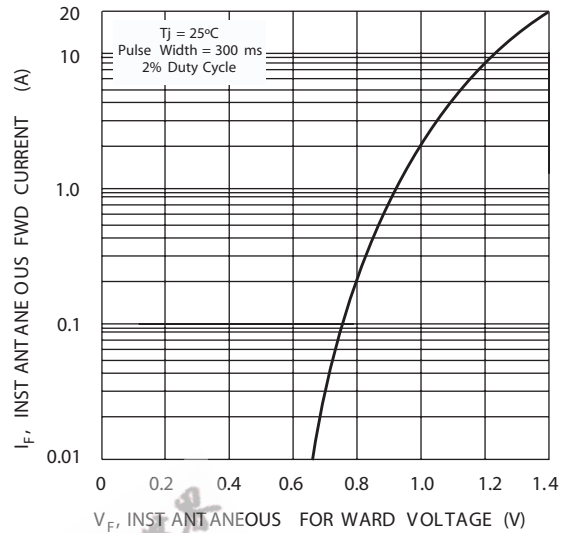


Fig. 2 Typical Forward Characteristics

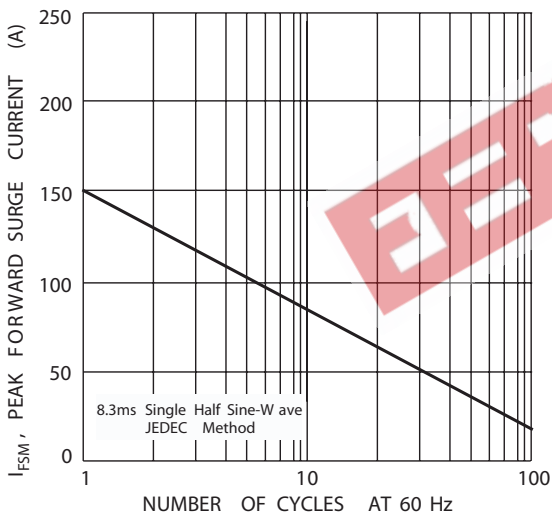


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

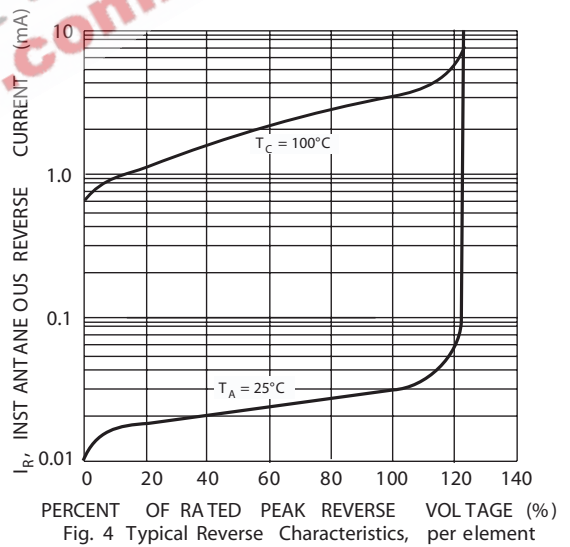


Fig. 4 Typical Reverse Characteristics, per element