

DEC

KBL4005 THRU KBL407

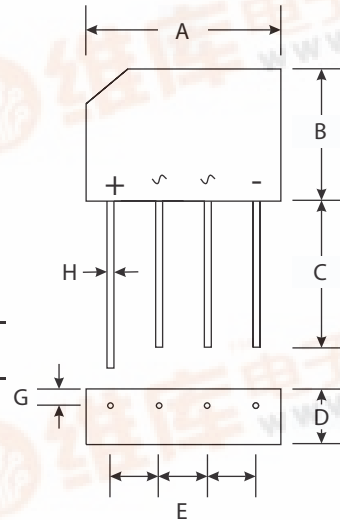
CURRENT 4.0 Amperes
VOLTAGE 50 to 1000 Volts

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

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



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		

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	V _{RMM}	50	100	200	400	600	800	1000	Volts
Working Peak Reverse Voltage	V _{RWM}								
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°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 A	V _{FM}	1.1							Volts
Peak Reverse Current at Rated DC Blocking voltage	@ T _C =25°C	10							μ A
	@ T _C =100°C	1.0							mA
I ² t Rating for Fusing (t<8.3ms) (Note 2)	I ² t	166							A ² s
Typical Thermal Resistance, Junction to Case (Note 1)	R _{θ JA}	19							°C/W
Operating and Storage Temperature Range	T _J T _{STG}	-65 to +125							°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 KBL4005 THRU KBL407

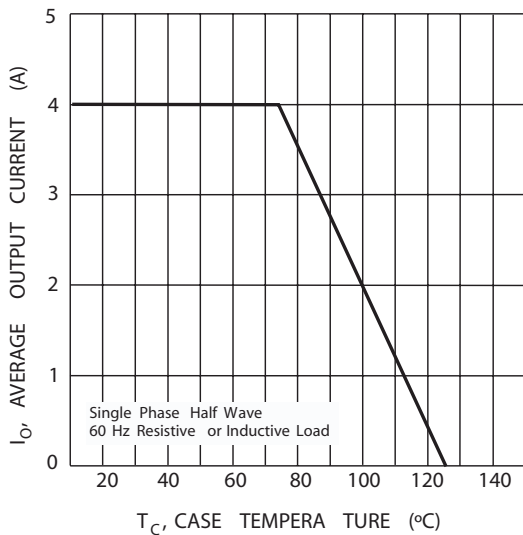


Fig. 1 Forward Current Derating Curve

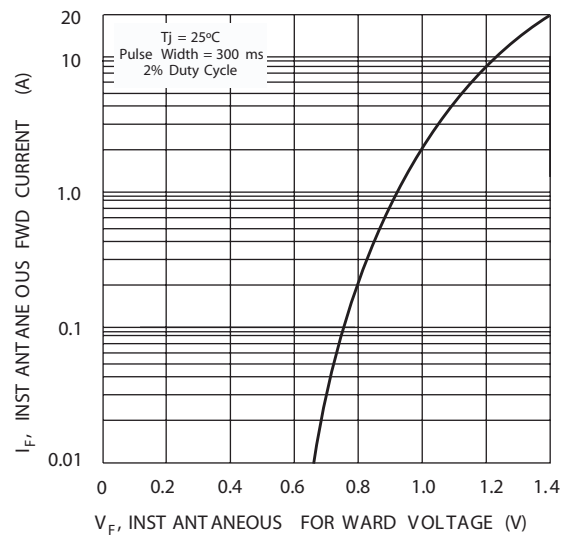


Fig. 2 Typical Forward Characteristics

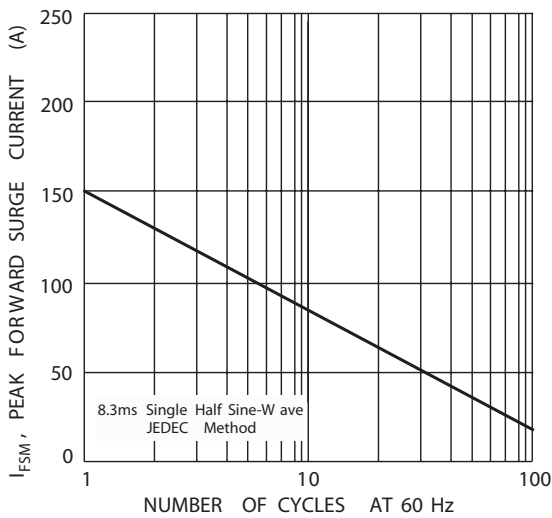


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

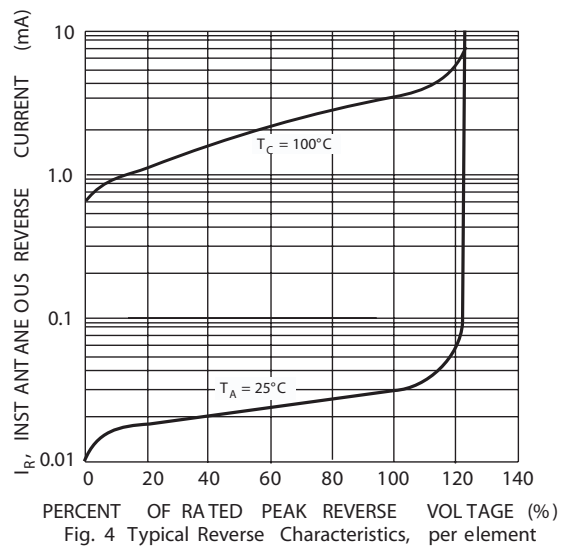


Fig. 4 Typical Reverse Characteristics, per element