

KI SEMICONDUCTOR

KBL4005 THRU KBL410

Features

- Low Leakage
- Low Forward Voltage
- Any Mounting Position
- Silver Plated Copper Leads
- Surge Overload Rating Of 200 Amps

Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RS401L	KBL4005	50V	35V	50V
RS402L	KBL401	100V	70V	100V
RS403L	KBL402	200V	140V	200V
RS404L	KBL404	400V	280V	400V
RS405L	KBL405	600V	420V	600V
RS406L	KBL406	800V	560V	800V
RS407L	KBL410	1000V	700V	1000V

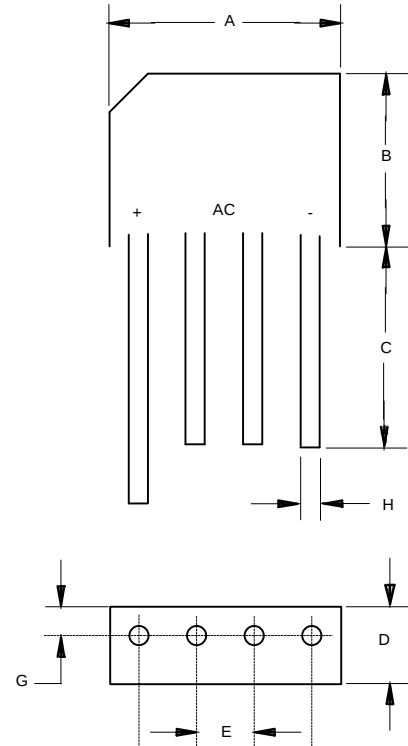
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	4.0A	$T_A = 50^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	200A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	V_F	1.1V	$I_{FM} = 3.0\text{A};$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 1.0mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

4 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

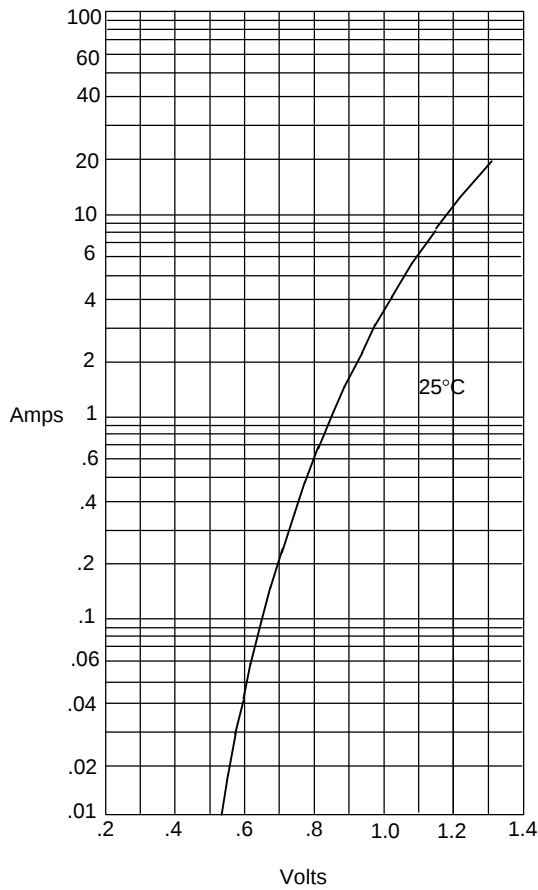
KBL4/RS4



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.728	.768	18.50	19.50	
B	.600	.640	15.20	16.30	
C	.750	---	19.00	---	
D	.236	.256	6.00	6.50	
E	.180	.220	4.60	5.60	
G	-----	.083	-----	2.10	
H	.048	.052	1.20	1.30	

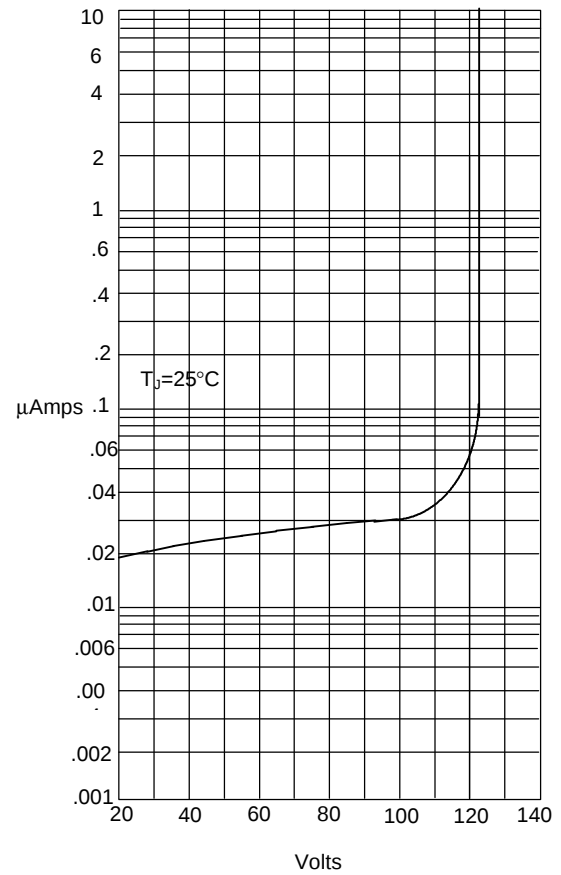
RS401L(KBL4005)hru RS407L(KBL410)

Figure 1
Typical Forward Characteristics



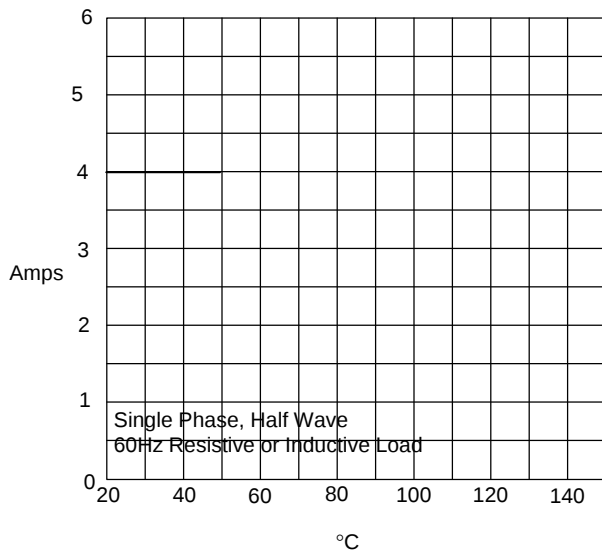
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



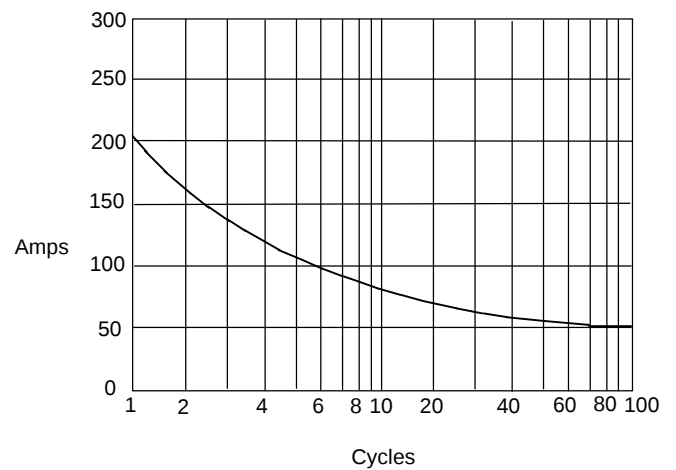
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles