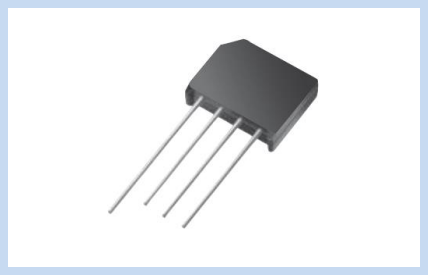
Single-Phase Bridge Rectifier 4.0A KBL Package

KBL4 Series

MERITEK

FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 4.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 200A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

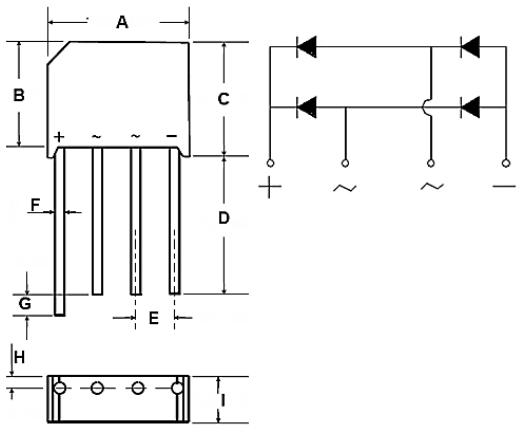
RoHS

Parameter	Code	KBL 4005	KBL 401	KB L402	KBL 404	KBL 406	KBL 408	KBL 410	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	I_F	4.0, T_A=50°C							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200							A
Rating for Fusing (t<8.3ms)	I^2t	166							A^2sec
Maximum Instantaneous Forward Voltage Drop per Diode	V_F	1.1, I_F=4.0A							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	10, T_A=25°C							μA
	I_R	1000, T_A=125°C							μA
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55~150							°C
Maximum Thermal Resistance	$R_{\theta JA}$	10.0							°C/W

Note:
1. Rating at 25℃ ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
2. Thermal resistance from junction to ambient on P.C. board mounting.

DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)
A	18.50	19.50
B	13.70	14.70
C	15.20	16.20
D	19.00	-
E	4.60	5.60
F	1.30	1.40
G	3.60	4.60
H	1.90	2.30
I	6.00	6.50



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4.0A KBL Package

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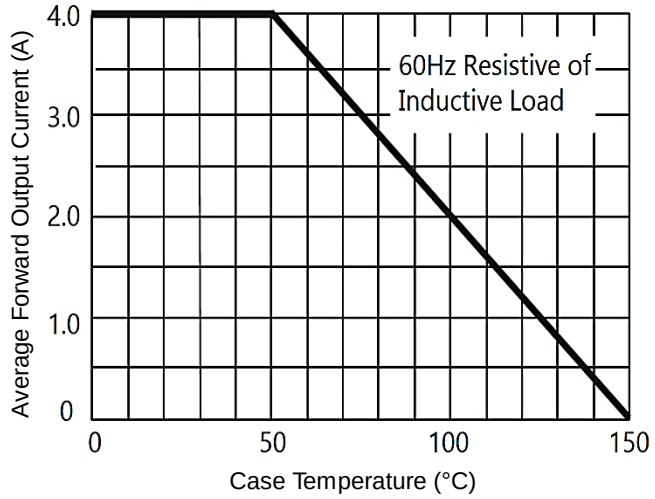
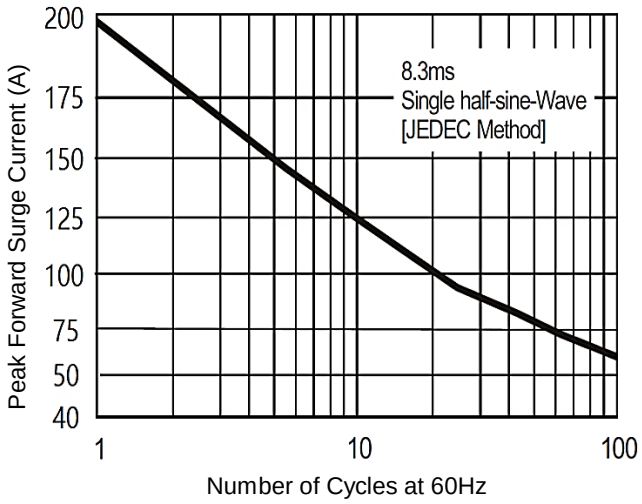
RATING AND CHARACTERISTIC CURVES

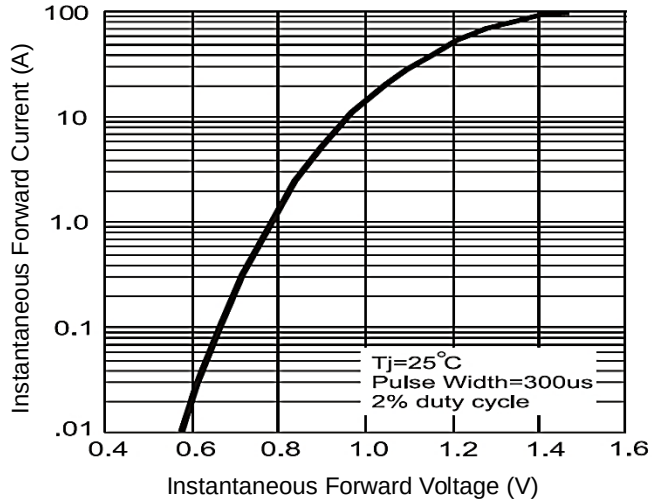
Derating Curve for Output Rectified Current



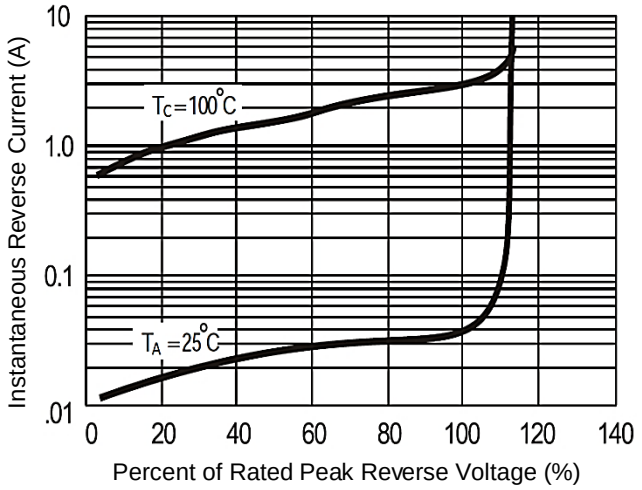
Maximum Non-Repetitive Peak Forward Surge Current



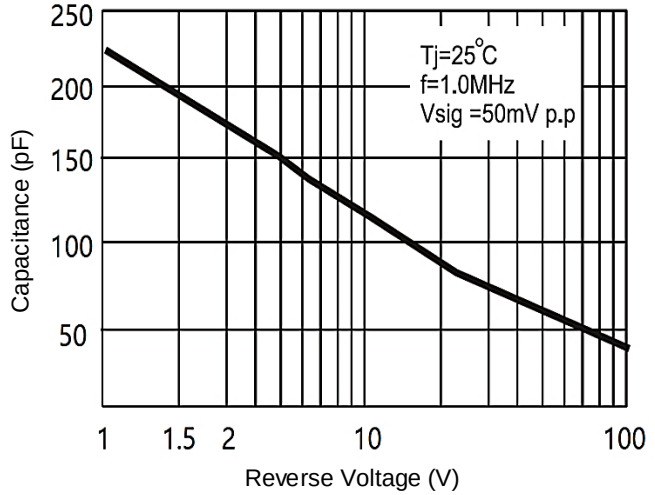
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at T_J=25°C



Typical Junction Capacitance



*Specifications subject to change without notice.