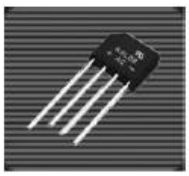
SYNSEMI SEMICONDUCTOR

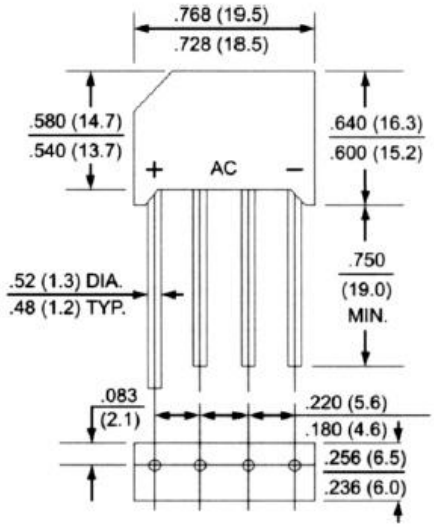
KBL / RS4L / KBL6 Series

Glass Passivated Single-Phase Bridge Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 4.0/6.0 Amperes

Features

- Surge overload rating - 200 Amperes peak
- Ideal for printed circuit boards
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Mounting Position: Any





Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbols	RS401L KBL005 KBL6005	RS402L KBL01 KBL601	RS403L KBL02 KBL602	RS404L KBL04 KBL604	RS405L KBL06 KBL606	RS406L KBL08 KBL608	RS407L KBL10 KBL610	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward output current at T_A=50°C (Note 1)	$I_{F(AV)}$	4.0 (RS4XXL, KBL0XX) 6.0 (KBL60XX)							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200.0 (RS4XXL, KBL0XX) 250.0 (KBL60XX)							Amps
Max. instantaneous forward voltage drop per element at 1.0A	V_F	1.0 (RS4XXL, KBL0XX) 1.05 (KBL60XX)							Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage per element T_A=100°C	I_R	10.0 1.0							uA mA
Operating and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Notes: 1. Mounting conditions, 0.5" lead length maximum.

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

FIG. 1 - MAXIMUM FORWARD SURGE CURRENT

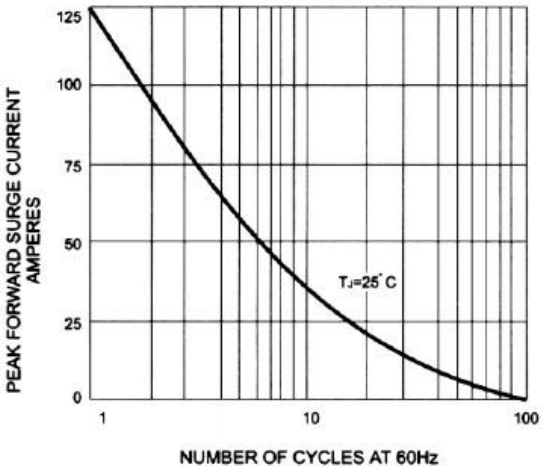


FIG. 2 - DERATING CURVE OUTPUT RECTIFIED CURRENT

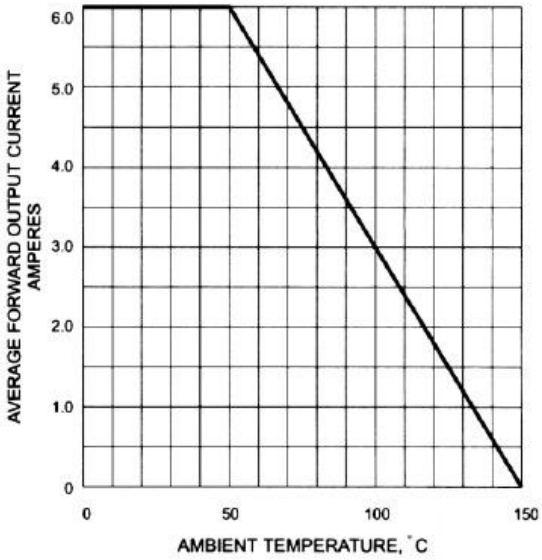


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

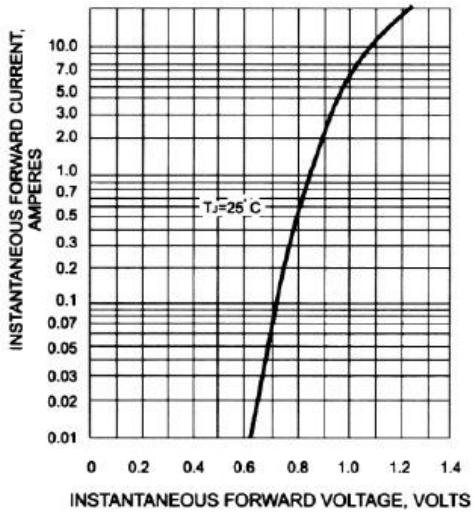


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

