



KBL4005 THRU KBL410

桥式整流器 Bridge Rectifier

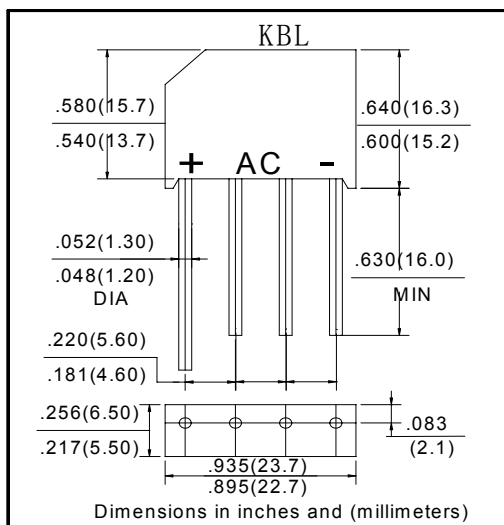
■特征 Features

- I_o 4A
- V_{RRM} 50V~1000V
- 玻璃钝化芯片
Glass passivated chip
- 耐正向浪涌电流能力高
High surge forward current capability

■用途 Applications

- 作一般电源单相桥式整流用
General purpose 1 phase Bridge rectifier applications

■外形尺寸和印记 Outline Dimensions and Mark



■极限值（绝对最大额定值）

Limiting Values(Absolute Maximum Rating)

参数名称 Item	符号 Symbol	单位 Unit	条件 Conditions	KBL4						
				005	01	02	04	06	08	10
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
平均整流输出电流 Average Rectified Output Current	I_o	A	60Hz 正弦波, 电阻负载, $T_a=40^\circ\text{C}$ 60Hz sine wave, R- load, $T_a=40^\circ\text{C}$	4						
正向(不重复)浪涌电流 Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz正弦波, 一个周期, $T_a=25^\circ\text{C}$ 60Hz sine wave, 1 cycle, $T_a=25^\circ\text{C}$	150						
正向浪涌电流的平方对电流浪涌持续时间的积分值 Current Squared Time	I^2t	A^2s	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, 单个二极管 $1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	93						
存储温度 Storage Temperature	T_{STG}	$^\circ\text{C}$		-55 ~ +150						
结温 Junction Temperature	T_j	$^\circ\text{C}$		-55 ~ +150						

■电特性（ $T_a=25^\circ\text{C}$ 除非另有规定）

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

参数名称 Item	符号 Symbol	单位 Unit	测试条件 Test Condition	最大值 Max
正向峰值电压 Peak Forward Voltage	V_{FM}	V	$I_{FM}=4\text{A}$, 脉冲测试, 单个二极管的额定值 $I_{FM}=4\text{A}$, Pulse measurement, Rating of per diode	1.05
反向峰值电流 Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, 脉冲测试, 单个二极管的额定值 $V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	10
热阻 Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	结和环境之间 Between junction and ambient	13 ⁽¹⁾
	$R_{\theta J-L}$		结和引线之间 Between junction and lead	2.4 ⁽²⁾

说明 (Notes):

- (1) PN结到周围环境的热阻, 安装在 $3.0 \times 3.0 \times 0.11$ " ($7.5 \times 7.5 \times 0.3$ cm) 规格的铝板上
Thermal resistance from junction to ambient with units mounted on $3.0 \times 3.0 \times 0.11$ " thick ($7.5 \times 7.5 \times 0.3$ cm) aluminum plate
- (2) PN结到引线的热阻, 安装在PCB板上, 引线长 0.375 " (9.5 mm), 铜板 0.5×0.5 " (12×12 mm)
Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375 " (9.5 mm) lead length and 0.5×0.5 " (12×12 mm) copper pads



■特性曲线（典型） Characteristics(Typical)

图1: I_o - T_a 曲线
FIG1: I_o - T_a Curve

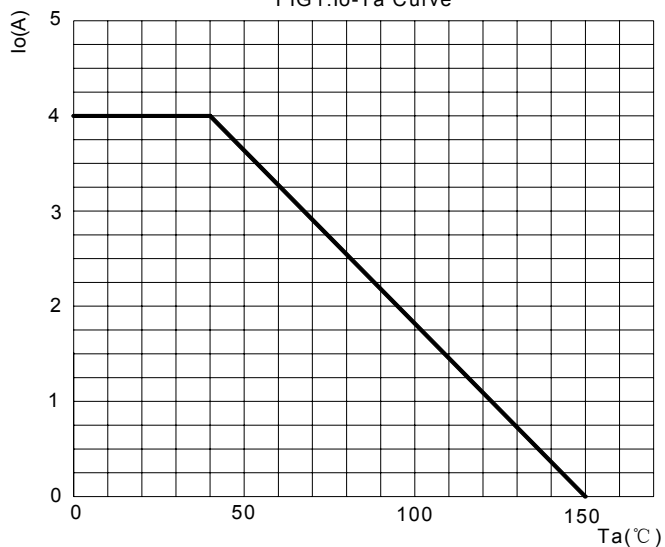


图2: 耐正向浪涌电流曲线
FIG2: Surge Forward Current Capability

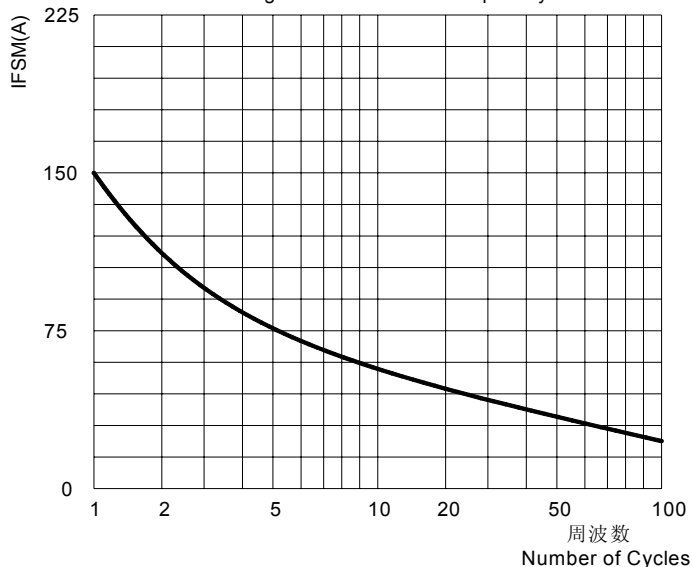


图3: 正向电压曲线
FIG3: Instantaneous Forward Voltage

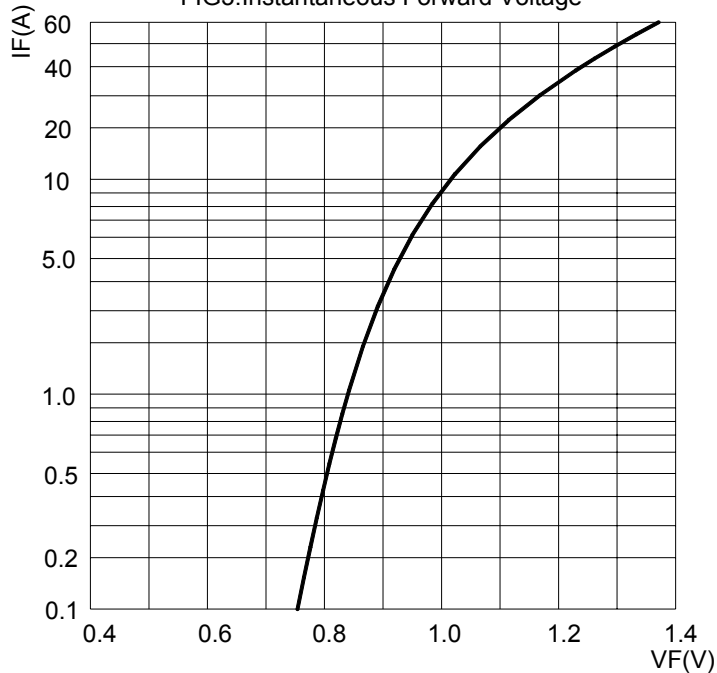


图4: 反向电流曲线
FIG4: Typical Reverse Characteristics

