

50A,1000V-1600V 单相玻璃钝化整流桥
50A,1000V-1600V Single Phase Glass Passivated Bridge Rectifier

■特征 Features

玻璃钝化芯片
Glass passivated chip
低反向漏电流
Low reverse leakage current
高耐浪涌电流能力
High surge current capability

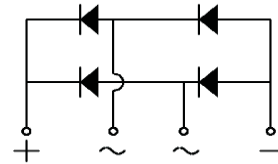
关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	50	A
V_{RRM}	1000-1600	V
I_{FSM}	500	A
Package	KBPC-W	

■应用范围 Applications

电焊机
Electric welder
工业电源
Industrial power supply
逆变器
Inverter
不间断电源
Uninterruptible power supply

■机械参数 Mechanical Data

本体：KBPC-W
Case: KBPC-W
极性：极性符号铸在管体上
Polarity: Polarity symbols being marked on body
安装扭矩：12.0 kgf.cm
Mounting torque:12.0 kgf.cm max
重量：约 17 克
Weight: About 17 grams



■最大额定值 Maximum Ratings @ Ta = 25°C unless otherwise noted

参数 PARAMETER	符号 SYMBOL	KBPC5010W	KBPC5012W	KBPC5014W	KBPC5016W	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	1000	1200	1400	1600	V
平均整流输出电流 Average rectified output current	$I_{(AV)}$	50				A
带散热片, $T_C=85^\circ\text{C}$ with heatsink $T_C=85^\circ\text{C}$						
最大正向浪涌电流, 8.3ms 单半正弦波叠加在额定负载上 Peak surge forward current, 8.3ms single half sinewave superimposed on rated load	I_{FSM}	500				A
热容值, $1\text{ms} < t < 8.3\text{ms}$ $T_J=25^\circ\text{C}$, 单个二极管 Rating for fusing $1\text{ms} < t < 8.3\text{ms}$ $T_J=25^\circ\text{C}$, Rating of per diode	I^2t	1037				A^2s
结温 Junction temperature	T_J	$-55 \sim +150$				$^\circ\text{C}$
存储温度 Storage temperature	T_{STG}	$-55 \sim +150$				$^\circ\text{C}$
绝缘耐压, 端子与外壳之间外加交流电 1 分钟 Dielectric strength terminals to case AC 1 minute	V_{dis}	2.5				KV

■电性特性 Electrical Characteristics @ Ta = 25 °C unless otherwise noted

参数 PARAMETER	条件 CONDITIONS		符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
正向峰值电压 Peak Forward Voltage	$I_F = 25A$		V_F	1.1	V
反向峰值电流 Peak Reverse Current	VR=VRRM , 脉冲测试, 单个二极管的额定值 VR=VRRM , Pulse measurement Rating of per diode	Tj=25°C	I_R	5	μA
		Tj=125°C		500	

■热特性 Thermal Characteristics @ Ta =25°C unless otherwise noted

参数 PARAMETER	符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
结到环境的热阻, 无散热片 Junction to ambient thermal resistance without heatsink	$R_{\theta JA}$	26	°C/W
结到管壳的热阻, 有散热片 Junction to case thermal resistance with heatsink	$R_{\theta JC}$	1.0	°C/W

■特性曲线 Characteristic Curve

FIG1.Derating Curve For Output Rectified Current

图 1. 电流降额曲线

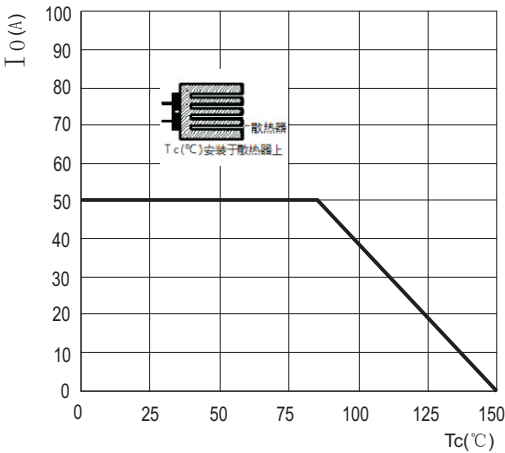


FIG2 .Maximum NonRepetitive Peak Forward Surge CurrentPer Bridge Element

图 2. 最大正向不重复峰值浪涌电流

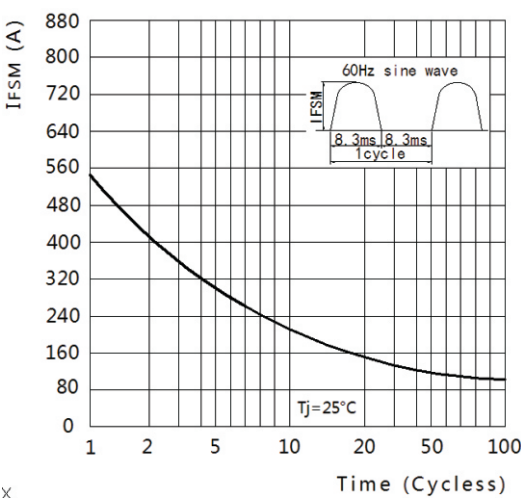


FIG3.Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

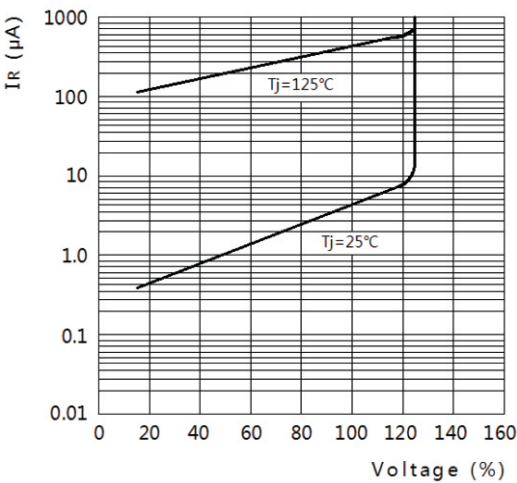
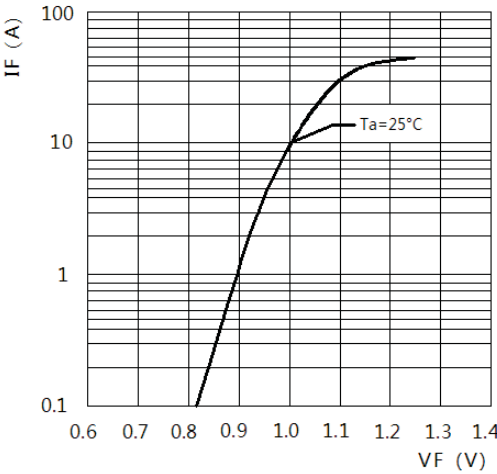
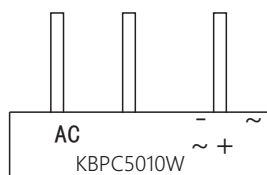


FIG4.Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性



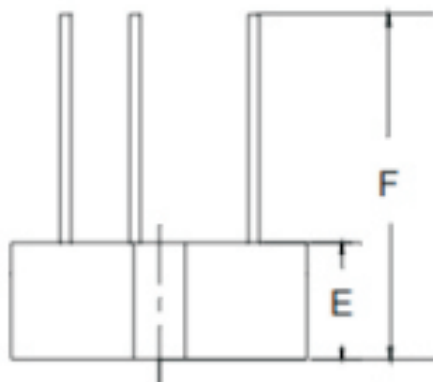
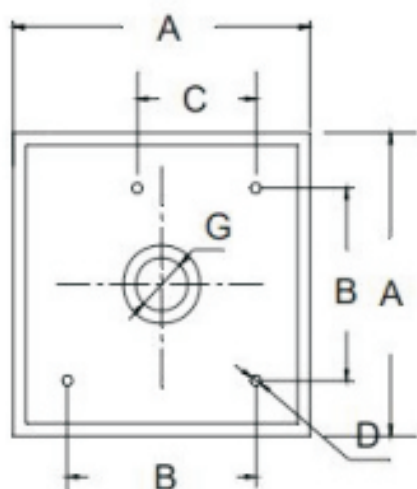
■ 标记图 Marking Diagram



KBPC5010W : 标识代码

Marking code

■ 尺寸图 Dimension Drawing



KBPC-W		
Dim	Min	Max
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	10.8	11.2
F	30	
G	5	5.5