

50A 单相整流桥

50A Glass Passivated Single-Phase Bridge Rectifier

特征 Features

玻璃钝化芯片

Glass passivated chip

低反向漏电流

Low Reverse Leakage Current

高耐浪涌电流能力达500安培

High surge current capability to 500 Amperes

塑封料已经UL可燃性认证94V-0，UL档案编号：E249161

Plastic material has Underwriters Laboratory flammability recognition 94V-0 , Recognized File # E249161



符合ROHS要求

ROHS compliance

高温焊接保证：260°C+5°C/10秒，拉力2.3 Kgf.cm

High temperature soldering guaranteed: 260°C+5°C/10 seconds (2.3 Kgf.cm)tension



机械参数 Mechanical Data

本体：塑封

Case : Molded plastic case

极 性：极性符号铸在管体上

Polarity : Polarity symbols being marked on body

安装位置：用M3螺丝固定在散热片上，桥和安装表面之间填充硅热混合物以达到最佳的散热效果

Mounting Position : Fixing the bridge rectifier with M3 screw to the heat sink.

Coat silicon thermal compound between backside of the bridge, which will be contacted with the heat sink for maximizing heat transfer.

重 量：约 7.2 克

Weight : About 7.2 grams

产品适用范围 Product scope of application

家用电器

Household Electric Appliances

工业电源

Industrial power supply

工业自动化设备

Industrial automation equipment

型号Type	V _{RRM} (V)	V _{RSM} (V)
HD50SB20	200V	300V
HD50SB40	400V	500V
HD50SB60	600V	700V
HD50SB80	800V	900V
HD50SB100	1000V	1100V
HD50SB120	1200V	1300V
HD50SB140	1400V	1500V
HD50SB160	1600V	1700V

最大额定值 Maximum Ratings and Thermal Characteristics @ Ta = 25°C unless otherwise noted

参数名称 Item	符号 Symbol	参数条件 Conditions	额定值 Rated value	单位 Unit
平均整流输出电流 Average Rectified Output Current	I _o	50Hz 正弦波负载, 50Hz sine wave load	带散热片,TC=100°C with heatsink,TC=100°C	50 A
最大正向浪涌电流 Peak Surge Forward Current	I _{fsm}	50HZ 正弦波,一个周期, T _j =25°C 50HZ sine wave,1 cycle, T _j =25°C	500	A
热容值 Rating for fusing	i _{2t}	1ms<t<8.3ms,T _j =25°C, 单个二极管 1ms<t<8.3ms,T _j =25°C, Rating of per diode	1000	A
		1ms<t<10.0ms,T _j =25°C, 单个二极管 1ms<t<10.0ms,T _j =25°C, Rating of per diode	1200	A
存储温度 Storage Temperature	T _{stg}		-55 ~ +150	°C
结温 Junction Temperature	T _j		-55 ~ +150	°C
绝缘耐压 Dielectric Strength	V _{dis}	接线端子与 AC 端,t=1 分钟, 漏电流小于 1 毫安 Terminal to case,AC 1 minute, I _R < 1mA	2.5	KV
安装扭矩 Mounting Torque	Tor	最大扭矩 Max torque	8	Kgf.cm ⁽³⁾
		建议安装扭矩 The proposed installation torque	5	

电气特性 Electrical Characteristics @ Ta = 25°C unless otherwise noted

参数名称 Item	符号 Symbol	测试条件 Test Conditions	额定值 Rated value	单位 Unit
正向峰值电压 Peak Forward Voltage	V _F	IF=25A, 脉冲测试, 单个二极管的额定值 IF=25A,Pulse measurement,Rate of per diode	Ta=25°C 1.1	V
反向峰值电流 Peak Reverse Current	I _R	VR=VRRM, 脉冲测试, 单个二极管的额定值 VR=VRRM, Pulse measurement,Rating of per diode	T _j =25°C 5	uA
			T _j =125°C 500	
热阻 Thermal resistance	R _{θJ-A}	结到环境的热阻,无散热片 Junction to ambient, without heatsink	18 ⁽¹⁾	°C/W
	R _{θJ-C}	结到管壳的热阻,有散热片 Junction to case, with heatsink	0.7 ⁽²⁾	

备注:

(1) 产品安装于 PCB 板上, 不带散热片。

Products installed on the PCB, Without heatsink.

(2) 产品安装于 PCB 板上, 带规定大小的散热片 (长 100mm*宽 50mm*厚 30mm)。

Products installed on the PCB, With heatsink (long 100mm*wide 50mm*thick 30mm)。

(3) 1kgf.cm=0.098N.m

特性曲线 Rating Characteristic

FIG.1 . Derating Curve For Output Rectified Current

图 1. 电流降额曲线

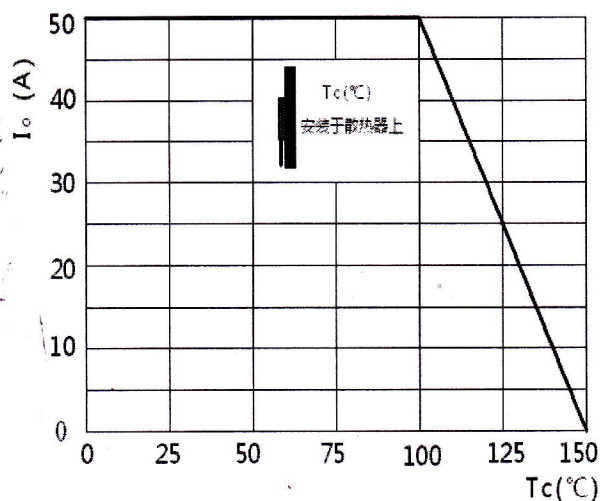


FIG.2 . Maximum Non-Repetitive Peak Orward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

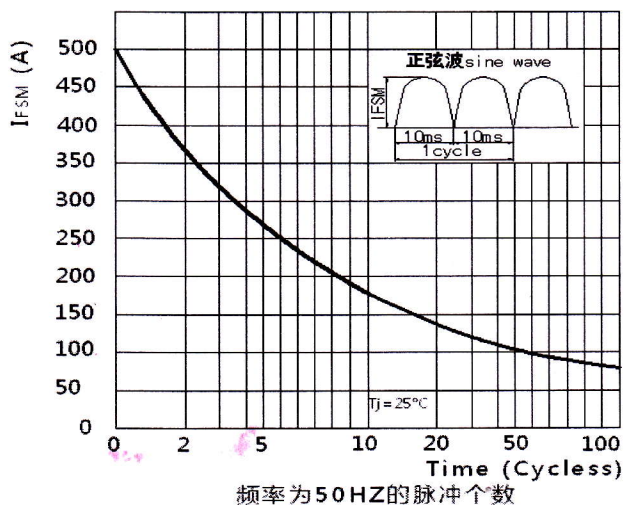


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

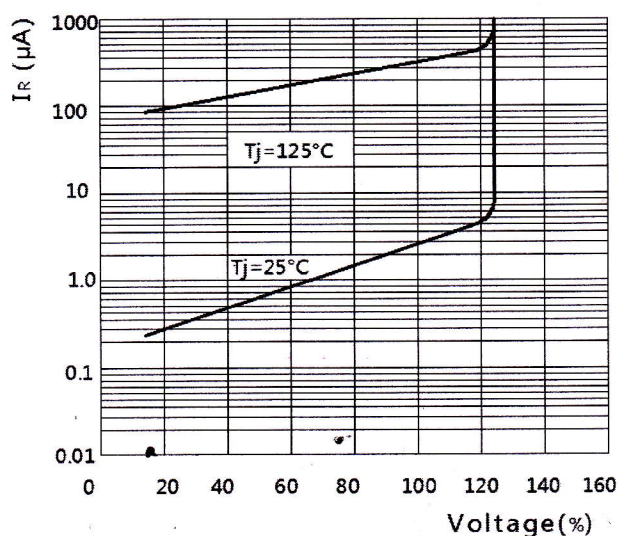
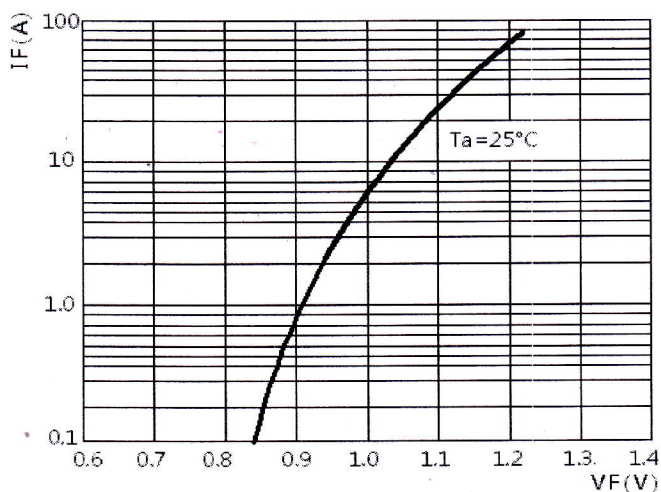
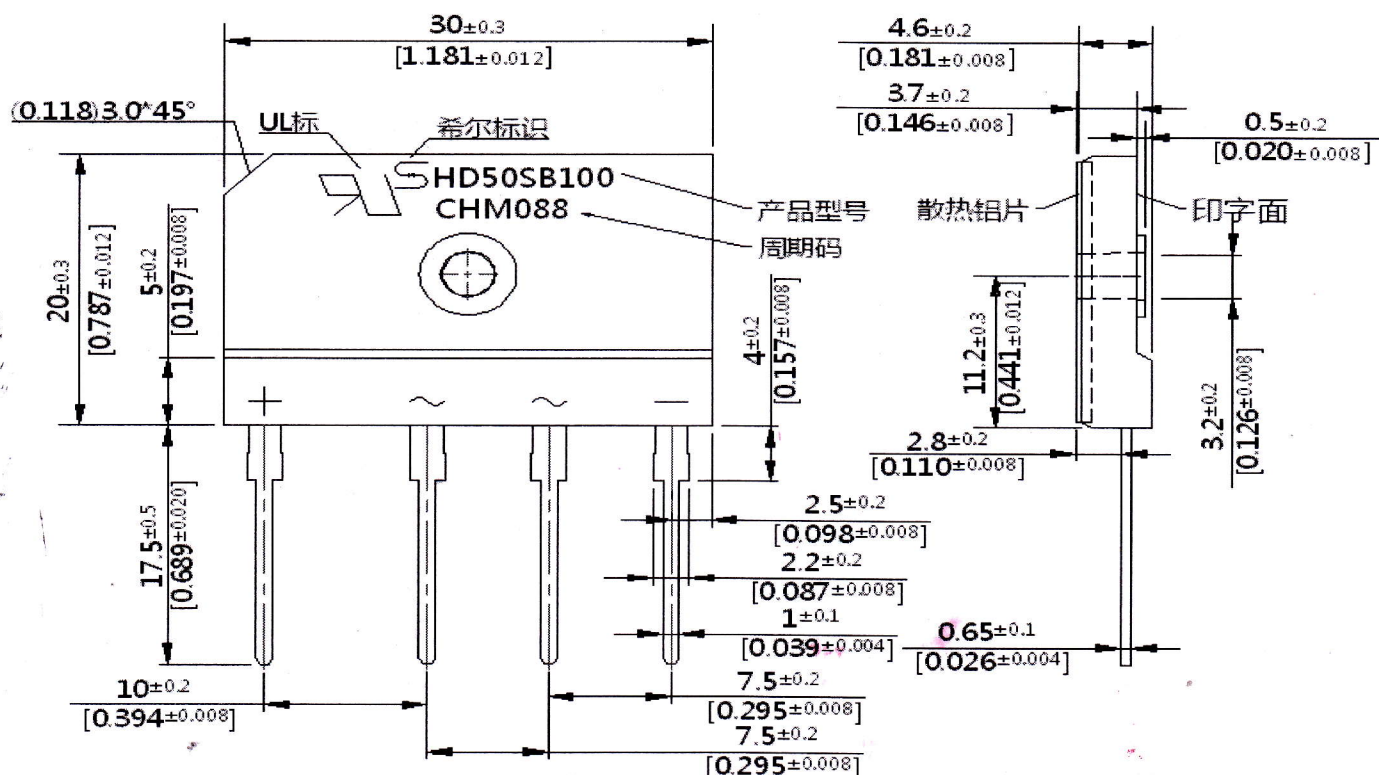


FIG4. Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性



尺寸图
Dimensioned drawing



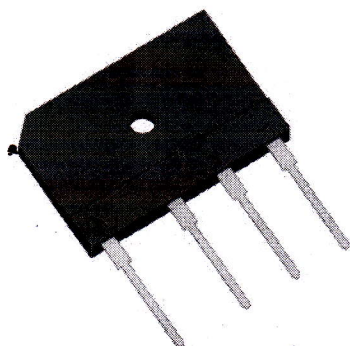
说明：1、：希尔标志 LOGO。

2、: UL 可燃性认证标识。

3、HD50SB100：产品型号，D 为封装代码，50 为电流 50A，100 表示电压值 1000V。

4、CHM088：生产流水号（随制程时间改变）。

外形图
Outside view



线路图
Circuit diagram

