

50A,1600V 单相玻璃钝化整流桥

50A,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
- UL 档案编号# E249161
UL recognized file # E249161
- 符合 RoHS 指令 2011/65/EU
Compliant to RoHS directive 2011/65/EU

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

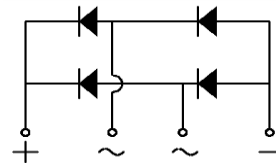
■应用范围 Applications

- 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: S-VB-W
Case : S-VB-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 21 克
Weight : About 21 grams



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

参数 PARAMETER	符号 SYMBOL	S50VB160 W	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	1600	V
平均整流输出电流 Average rectified output current	$I_{(AV)}$	50	A
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 sine-wave superimposed on rated load	I_{FSM}	500	A
热容值, 1ms<t<8.3ms, Tj=25°C, 单个二极管 Rating for fusing, 1ms<t<8.3ms, Tj=25°C, Rating of per diode	I^2t	1037	A ² s
结温 Junction temperature	T_j	-55 ~ +150	°C
存储温度 Storage temperature	T_{STG}	-55 ~ +150	°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	$T_j=25^\circ C$	5	μA
		$T_j=125^\circ C$	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	$^\circ C/W$
结到管壳的热阻, 有散热片 Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	1.0	$^\circ C/W$

■特性曲线 Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

图 1. 电流降额曲线

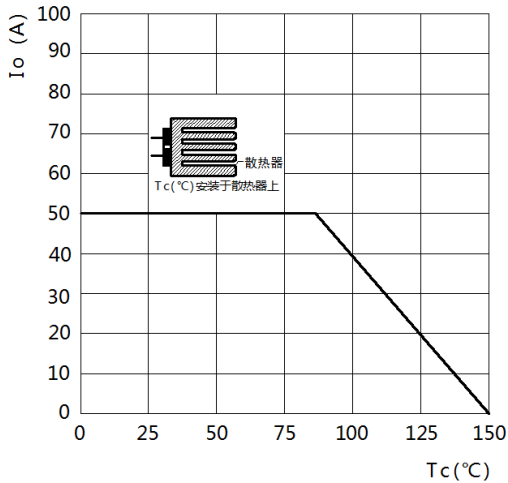


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

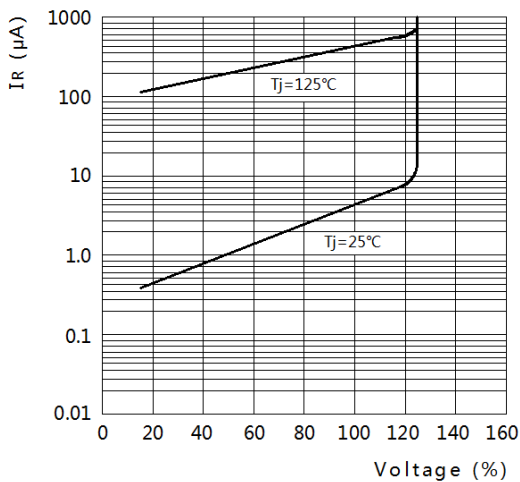


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

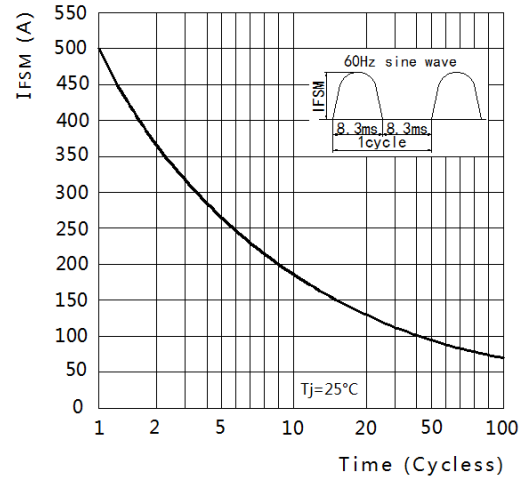
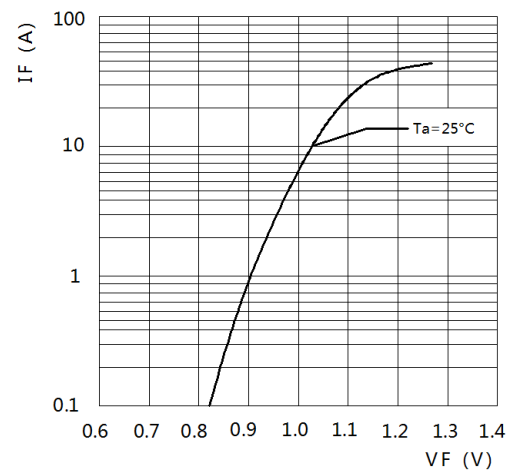
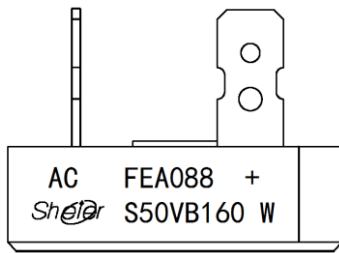


FIG4. Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性



■ 标记图 Marking Diagram



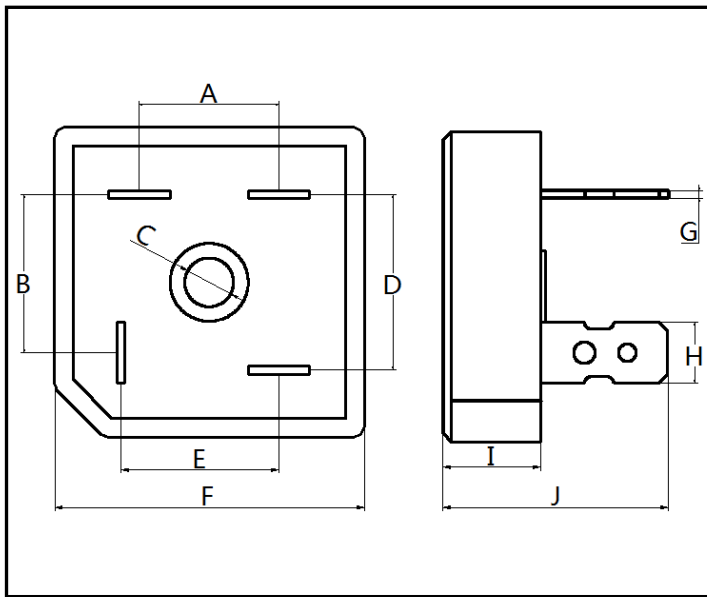
S50VB160 W : 标识代码

Marking code

FEA088 : 制程码

Process code

■ 尺寸图 Dimension Drawing



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	13.90	14.90	0.547	0.587
B	15.70	16.70	0.618	0.657
C	4.50	5.50	0.177	0.217
D	17.50	18.50	0.689	0.728
E	15.70	16.70	0.618	0.657
F	31.00	32.00	1.220	1.260
G	0.60	1.00	0.024	0.039
H	6.10	6.50	0.240	0.256
I	9.50	10.50	0.374	0.413
J	22.00	24.00	0.866	0.945

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