



# HD30SB60~HD30SB100

## 单向硅整流桥堆

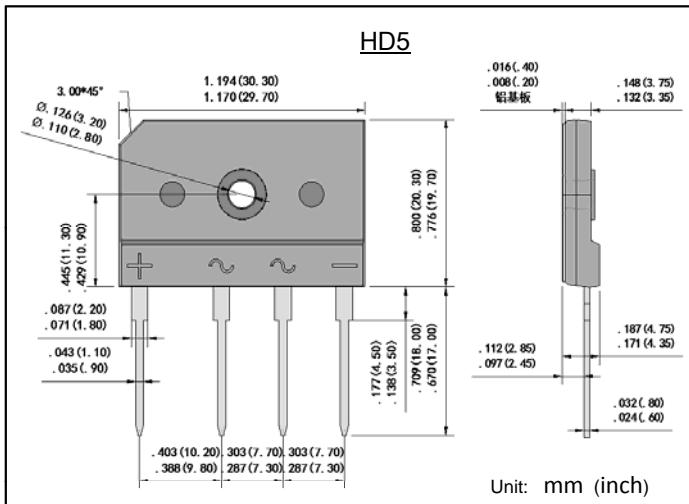
反向电压 600 ~ 1000 V

正向电流 30 A

## Single Phase Silicon Bridge Rectifiers

Reverse Voltage 600 ~ 1000 V

Forward Current 30 A



## 特征 Features

- 反向漏电流低 Low reverse leakage
- 正向浪涌承受能力强 High forward surge capability
- 高信赖性 High reliability
- 玻璃钝化芯片 Glass passivated chip
- 引线 and 管体皆符合RoHS标准  
Lead and body according with RoHS standard
- 型号后缀“-F”标记无卤素产品  
Green compound with suffix “-F” on Marking

## 机械数据 Mechanical Data

- 封装外形:HD5 塑封 Case:HD5 Molded plastic
- 环氧树脂: UL易燃等级: 94V-0  
Epoxy: UL 94V-0 rate flame retardant
- 引脚: 镀锡, 无铅 Lead: Pure tin plated, lead free
- 安装位置: 任意 Mounting Position: Any
- 安装扭矩: 推荐值 0.5牛\*米 Mounting torque : Recommend 0.5 N\*m

## 最大值和温度特性 TA = 25°C 除非另有规定。

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

参数 Parameter	符号 Symbols	HD30SB60	HD30SB80	HD30SB100	单位 Unit
最大可重复峰值反向电压 Maximum repetitive peak reverse voltage	$V_{RRM}$	600	800	1000	V
最大均方根电压 Maximum RMS voltage	$V_{RMS}$	420	560	700	V
最大直流阻断电压 Maximum DC blocking voltage	$V_{DC}$	600	800	1000	V
平均整流电流 Average forward rectified current	60Hz正弦波负载 60Hz sine wave load	带散热片, TC=100°C with heatsink, TC=100°C		30	A
		无散热片 Ta=25°C without heatsink, Ta =25°C		3.5	A
正向不重复浪涌电流 8.3 ms单—正弦半波 Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave	$I_{FSM}$		380		A
引线 and 管壳间绝缘强度 Dielectric strength Terminals to case	$V_{dis}$		2500		V
熔断系数 $t \leq 8.3$ ms Current squared time $t \leq 8.3$ ms	$I^2t$		480		A <sup>2</sup> S
典型热阻 Typical thermal resistance	$R_{\theta JA}$ (Note 1)		18		°C/W
	$R_{\theta JC}$ (Note 2)		0.75		
工作结温 Operating junction temperature	$T_J$		150		°C
存储温度 Storage temperature range	$T_{STG}$		-55 --- +150		°C

备注 Note:

- 1) 安装在PCB板上, 从PN结到周围环境的热阻。  
1) Thermal resistance from junction to ambient , PCB mounted.
- 2) 安装在100mm\*100mm\*1.6mm铝板散热器上, 从PN结到管体的热阻。  
2) Thermal resistance from junction to case , installed on 100mm\*100mm\*1.6mm aluminum radiator.

## 电特性 TA = 25°C 除非另有规定。

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

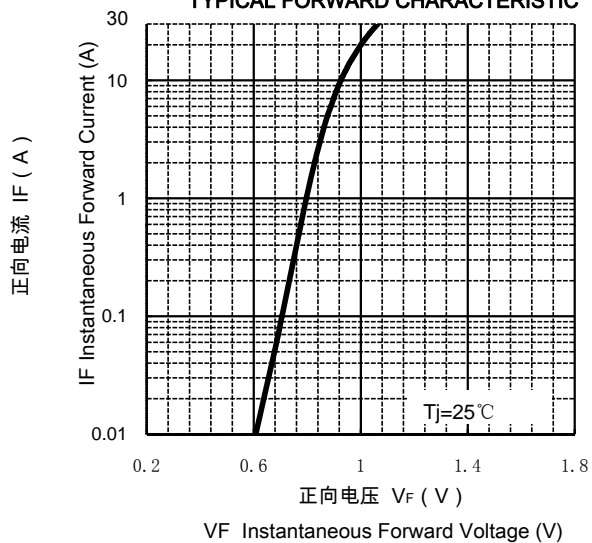
参数 Parameter	符号 Symbols	HD30SB60	HD30SB80	HD30SB100	单位 Unit
最大正向电压 @IF=15A Maximum forward voltage	$V_F$		1.10		V
最大反向电流 @V <sub>DC</sub> TA= 25°C Maximum reverse current	$I_R$		10		μA



## 特性曲线 Characteristic Curves

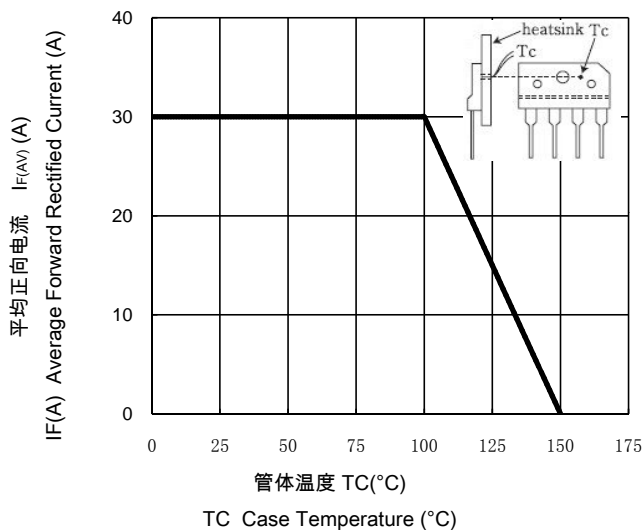
### 正向特性曲线 (典型值)

#### TYPICAL FORWARD CHARACTERISTIC



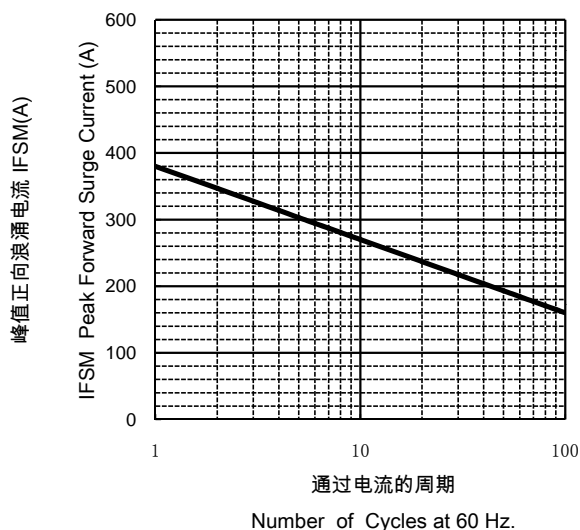
### 正向电流降额曲线

#### FORWARD CURRENT DERATING CURVE



### 浪涌特性曲线 (最大值)

#### MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



### 反向特性曲线

#### TYPICAL REVERSE CHARACTERISTICS

