

## 60A,250V 玻璃钝化快恢复二极管 60A,250V Glass Passivated Fast Recovery Diode

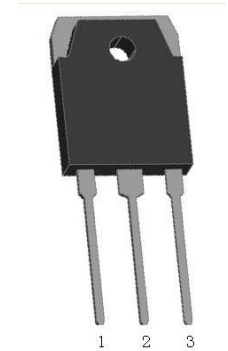
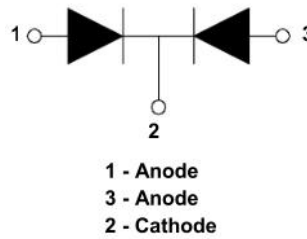
### ■特征 Features

- 超快恢复时间  
Ultra fast Recovery Times
- 软恢复特性  
Soft Recovery Characteristics
- 低正向电压  
Low Forward Voltage
- 低漏电流  
Low Leakage Current

关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	60	A
$V_{RRM}$	250	V
$I_{FSM}$	800	A
Package	TO-3P	

### ■应用范围 Applications

- 开关电源  
Switch mode Power Supply
- 逆变器  
Inverters
- 续流二极管  
Free Wheeling Diode
- 电机控制器  
Motor Controllers
- 变频器  
Converters
- 功率因数校正  
PFC



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

特征参数/测试条件 Characteristic / Test Conditions	符号 SYMBOL	S2FD60B25 E	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	$V_{RRM}$	250	V
平均整流输出电流 Average rectified output current	$I_{(AV)}$	60 (30*2)	A
T <sub>C</sub> =100°C			
最大正向浪涌电流, 8.3 ms 单半正弦波叠加在额定负载上 Peak surge forward current, 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	800	A
结温 Junction temperature	T <sub>J</sub>	-55~+150	°C
存储温度 Storage temperature	T <sub>STG</sub>	-55~+150	°C
结电容 Junction capacitance @4V,1MHz	C <sub>J</sub>	800	pF
引脚可承受温度 (10s) Lead Temperature for 10 Sec	TL	260	°C

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

参数 PARAMETER	条件 CONDITIONS	符号 SYMBOL	标准值 Typ	最大值 Max	单位 UNIT
正向峰值电压 Peak Forward Voltage	IF=30.0A, Tj=25°C	VF	0.93	1.0	V
	IF=30.0A, Tj=125°C		0.78	0.83	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	/	5	μA
		Tj=125°C	/	100	
反向恢复时间 Reverse Recovery Time	IF=0.5A, IRM=1A, IRR=0.25A, TC=25°C	Trr	48	50	ns

■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
结到壳体的热阻, 带散热器 Junction-to-case thermal resistance with heat sink	Rθjc	0.8	°C/W

■特性曲线 Characteristic Curve

FIG.1 . Derating Curve For Output Rectified Current

图 1. 电流降额曲线

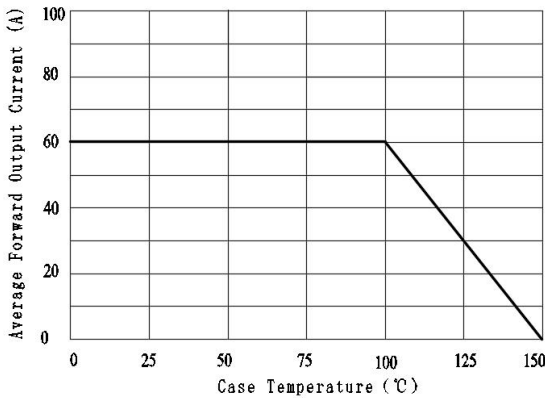


FIG.3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

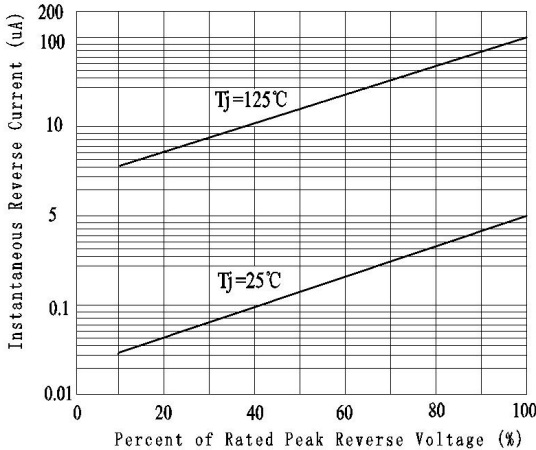


FIG.2 . Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

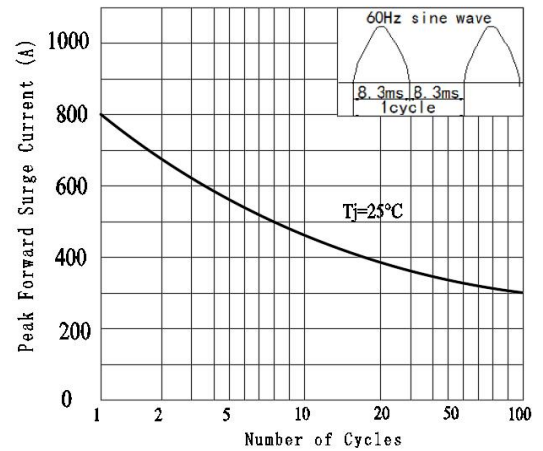


FIG.4. Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性

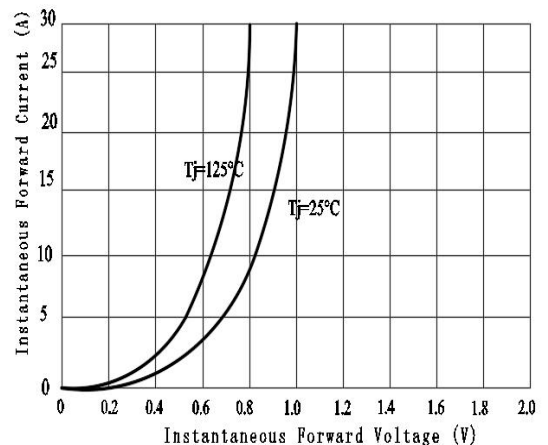
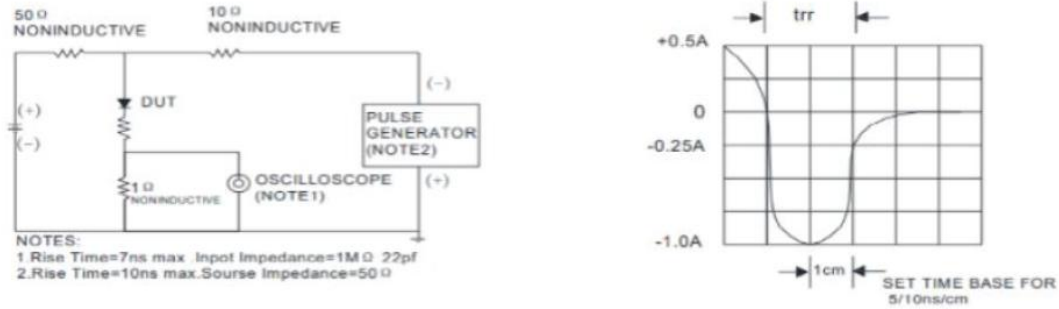



FIG.5. Diode Reverse Recovery Test Circuit and Waveform

图 5. 二极管反向恢复测试电路及波形



■ 标记图 Marking Diagram

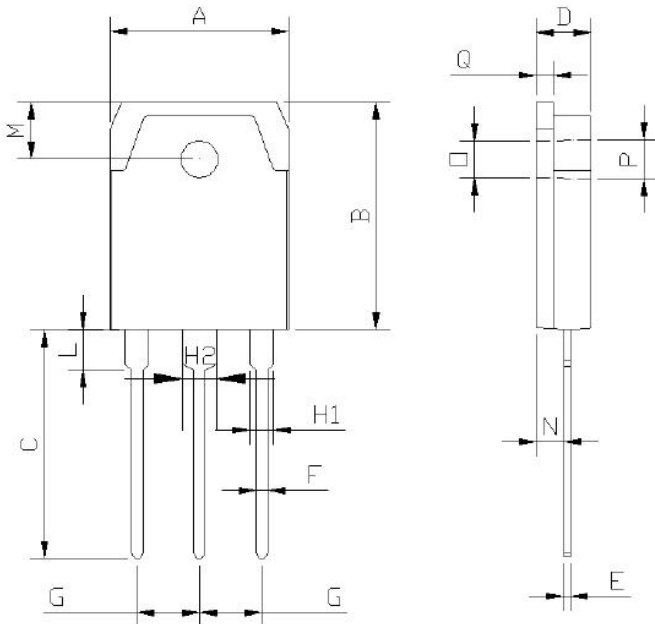


 : 希尔LOGO

S2FD60B25 E: 标识代码

NHA001: 产品批次码

■ 尺寸图 Dimension Drawing



Dim.	Millimeter		Inches	
	min	max	min	max
A	15.1	16.1	0.594	0.634
B	19.4	20.4	0.764	0.803
C	19	20	0.748	0.787
D	4.3	5.3	0.169	0.209
E	0.4	0.8	0.016	0.031
F	0.8	1.2	0.031	0.047
G	5.25	5.65	0.207	0.222
H1	1.8	2.2	0.071	0.087
H2	2.8	3.2	0.110	0.126
L	2.7	3.1	0.106	0.122
M	4.7	5.3	0.185	0.209
N	2.2	2.6	0.087	0.102
O	3	3.3	0.118	0.130
P	3.3	3.6	0.130	0.142

Notice

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