

40A 600V 玻璃钝化快恢复整流桥
40A,600V Glass Passivated Fast Recovery Bridge Rectifier

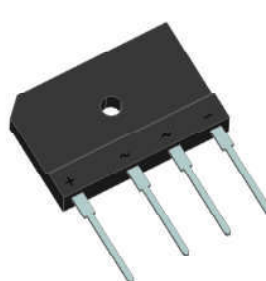
■特征 Features

- 快恢复时间
Fast Recovery Times
- 软恢复特性
Softer Recovery Characteristics
- 低正向电压
Low Forward Voltage
- 低反向漏电流
Low reverse leakage current

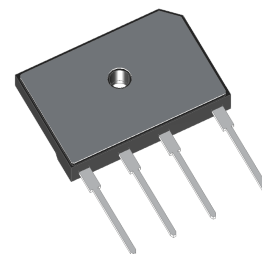
■应用范围 Applications

- 续流二极管
Free Wheeling Diode
- 电机控制器
Motor Controllers
- 开关式电源
Switching mode power supply
- 转换器 V
Converters
- 逆变器
Inverters
- 缓冲二极管
Snubber Diode
- 功率因数校正
PFC:Power Factor Correction

关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	40	A
V_F	1.6	V
V_{RRM}	600	V
TRR	40	ns
Package	HD-SB	

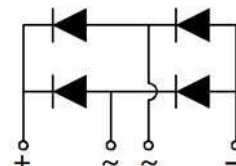


Vertical view



Back side view

Circuit diagram



■机械参数 Mechanical Data

- 安装扭矩: 8.0kgf.cm
Mounting torque: 8.0kgf.cm max
- 重量: 约 7.2 克
Weight : About 7.2grams

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

特征/测试条件 Characteristic / Test Conditions	符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	VRRM	600	V
最大平均正向电流 Maximum Average Forward Current	$I_{F(AV)}$	40	A
最大正向浪涌电流, 8.3ms 正弦半波 Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	IFSM	400	A
存储温度、结温 Storage and Junction Temperature Range	TSTG	-55 ~ +150	℃
耐焊接热, 高温持续 10 秒 Resistance to Soldering Heat, Lead Temperature for 10 Sec	TL	260	℃
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}	2.0	KV

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

特征/测试条件 Characteristic / Test Conditions	符号 SYMBOL	典型值 TYP	最大值 MAX	单位 UNIT
正向峰值电压 Peak Forward Voltage	VF	IF=20A , Tj=25℃ 1.60	2.00	V
		IF=20A , Tj=150℃ 1.15	1.50	V
VR=VRRM, 脉冲测试, 单个二极管的额定值 VR=VRRM, Pulse measurement Rating of per diode	IR	Tj=25℃ /	10	μA
		Tj=150℃ /	500	
反向恢复时间 Reverse Recovery Time	TRR	IF=0.5A IRR=0.25A IRM=1A TC=25℃ 40	50	ns

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

特征/测试条件 Characteristic / Test Conditions	符号 SYMBOL	典型值 TYP	最大值 MAX	单位 UNIT
结到管壳的热阻,有散热片 Junction to case Thermal Resistance , with heat sink	RθJC	0.7	/	℃/W

■特性曲线 Characteristic Curve

FIG.1 . Derating Curve For Output Rectified Current

图 1. 电流降额曲线

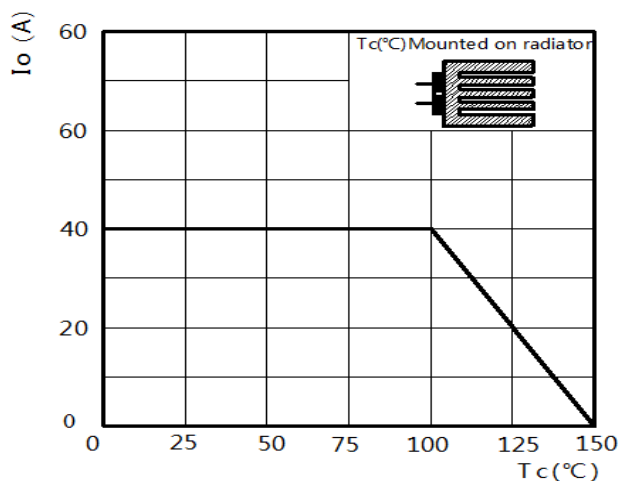


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

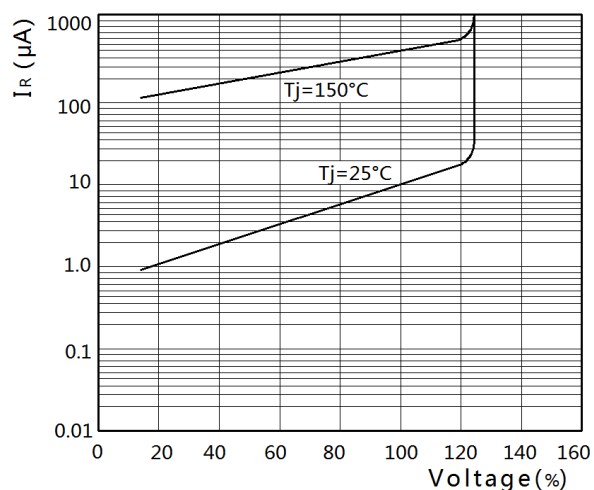


FIG.2 . Maximum Non-Repetitive Peak Forward Surge

Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

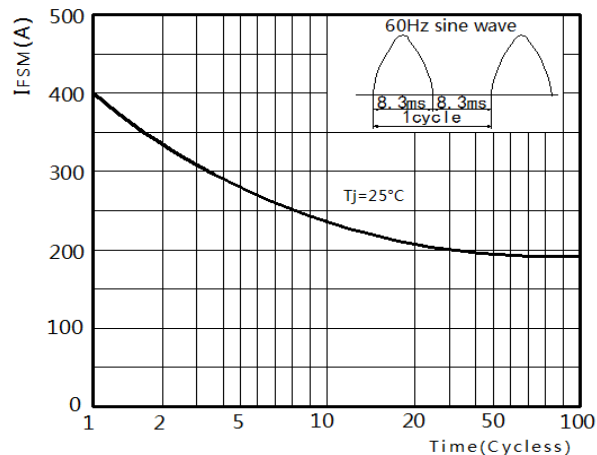
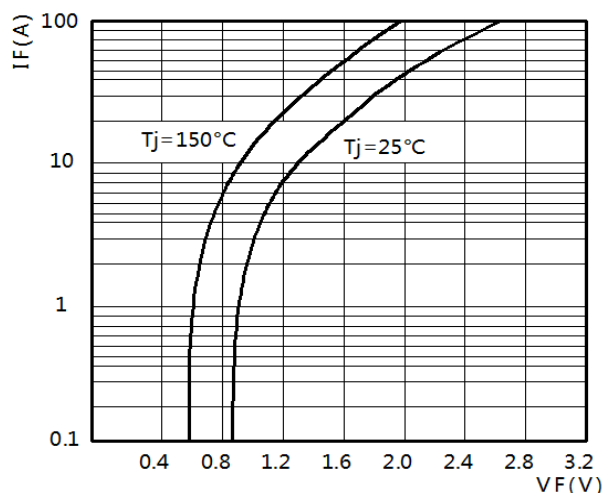
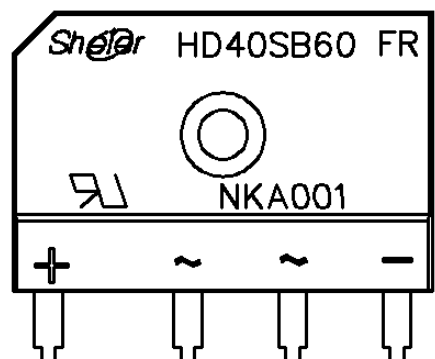


FIG4. Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性

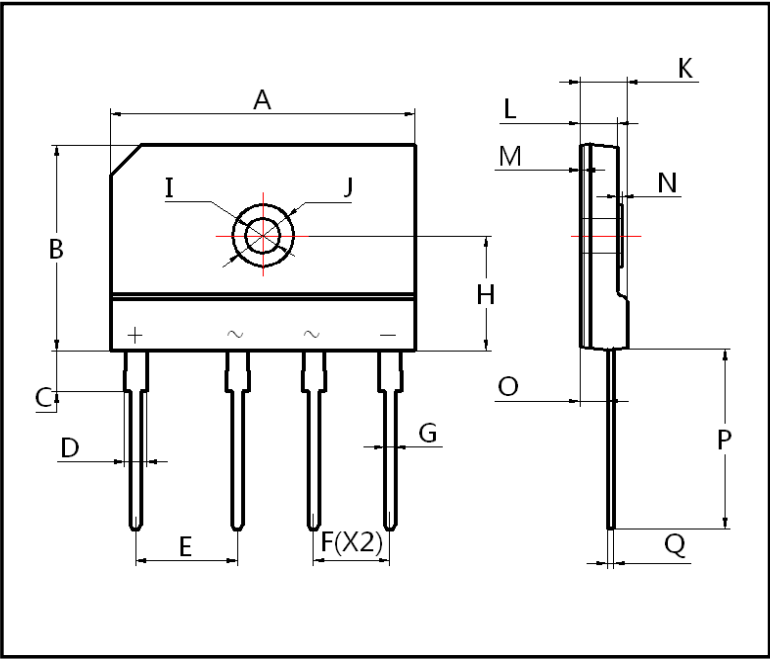


■标记图 Marking Diagram



Sheier : 公司LOGO
HD40SB60 FR: 标识代码
HD-SB: 封装结构, FR: 快恢复芯片
40: 40A, 60: 600V
NKA001: 产品批次码

■尺寸图 Dimension Drawing



Dim.	Millimeter	
	min	max
A	29.7	30.3
B	19.7	20.3
C	3.5	4.5
D	1.8	2.2
E	9.8	10.2
F	7.3	7.7
G	0.9	1.1
H	11.0	11.4
I	3.1	3.5
J	5.8	6.2
K	4.4	4.8
L	3.5	3.9
M	0.75	0.95
N	0.3	0.7
O	2.5	2.9
P	17	18
Q	0.55	0.75

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