

## 60A,600V-1600V 高压整流二极管

### 60A,600V-1600V High Voltage Input Rectifier Diode

#### ■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
- 符合 RoHS 指令 2011/65/EU  
Compliant to RoHS directive 2011/65/EU
- 符合 AEC-Q101 质量要求  
Compliant to AEC-Q101 quality requirement

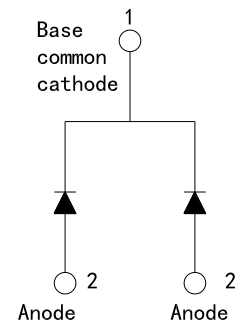
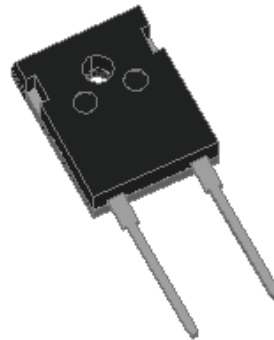
关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	60	A
$V_{RRM}$	600-1600	V
$I_{FSM}$	1100	A
Package	TO-247	

#### ■应用范围 Applications

- 输入整流  
Input rectification
- 半导体开关和输出整流  
Semiconductors switches and output rectifiers which are available in identical package outlines  
Household electric appliances

#### ■机械参数 Mechanical Data

- 本体: TO-247  
Case :TO-247
- 安装扭矩: 8.0kgf.cm  
Mounting torque: 8.0kgf.cm max
- 重量: 约 6.4 克  
Weight : About 6.7 grams



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

参数 PARAMETER	符号 SYMBOL	60EPS06 DH	60EPS08 DH	60EPS10 DH	60EPS12 DH	60EPS16 DH	单位 UNIT	
反向重复峰值电压 Maximum recurrent peak reverse voltage	$V_{RRM}$	600	800	1000	1200	1600	V	
平均整流输出电流 Average rectified output current	$I_{F(AV)}$	带散热片, $T_C=100^\circ\text{C}$ with heatsink, $T_C=100^\circ\text{C}$					60	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		$I_{FSM}$	1100					A
热容值, $1\text{ms}<t<8.3\text{ms}$ , $T_j=25^\circ\text{C}$ , 单个二极管 Rating for fusing, $1\text{ms}<t<8.3\text{ms}$ , $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	5020					$\text{A}^2\text{s}$	
结温 Junction temperature	$T_j$	-55 ~ +150					$^\circ\text{C}$	
存储温度 Storage temperature	$T_{STG}$	-55 ~ +150					$^\circ\text{C}$	

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

参数 PARAMETER	条件 CONDITIONS	符号 SYMBOL	60EPS06 DH	60EPS08 DH	60EPS10 DH	60EPS12 DH	60EPS16 DH	单位 UNIT
正向峰值电压 Peak Forward Voltage	IF=30A, 脉冲测试, 二极管的额定值 IF=30A,Pulse measurement,Rate of diode	V <sub>F</sub>	0.92		0.95		1	V
	IF=60A, 脉冲测试, 二极管的额定值 IF=60A,Pulse measurement,Rate of diode	V <sub>F</sub>	0.95		1.0		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 measurementRating of per diode	T <sub>j</sub> =25 °C			0.1			mA
		T <sub>j</sub> =125 °C			1.0			

■ 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
结到管壳的热阻, 有散热片 Junction to case , with heatsink	R <sub>θJC</sub>	0.38	°C/W

■ 特性曲线 Characteristic Curve

FIG.1 . Derating Curve For Output Rectified Current

图 1. 电流降额曲线

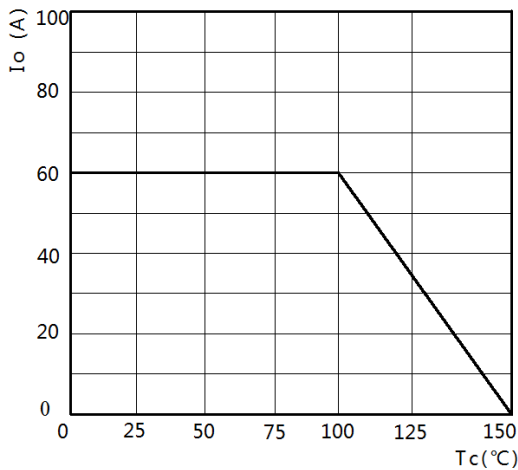


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

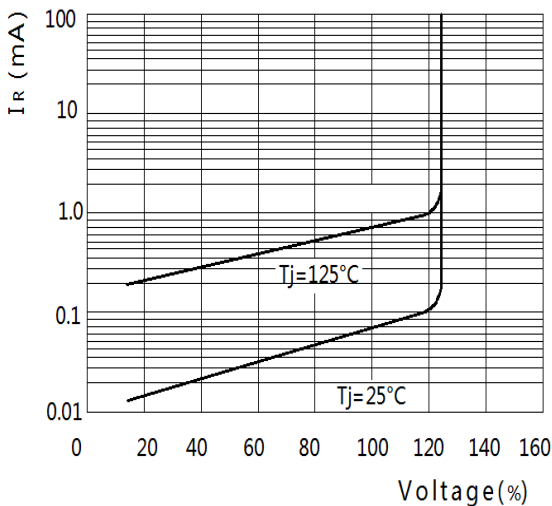


FIG.2 . Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

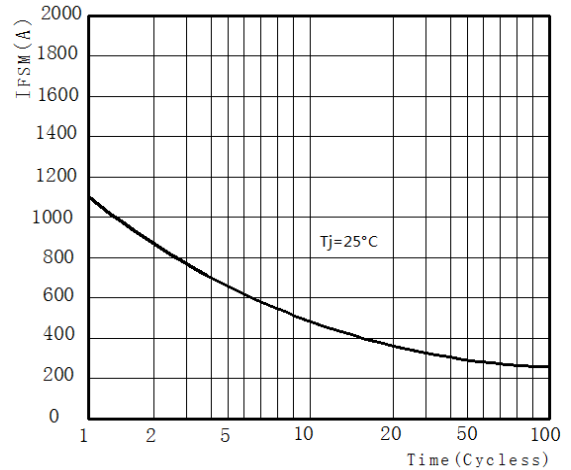
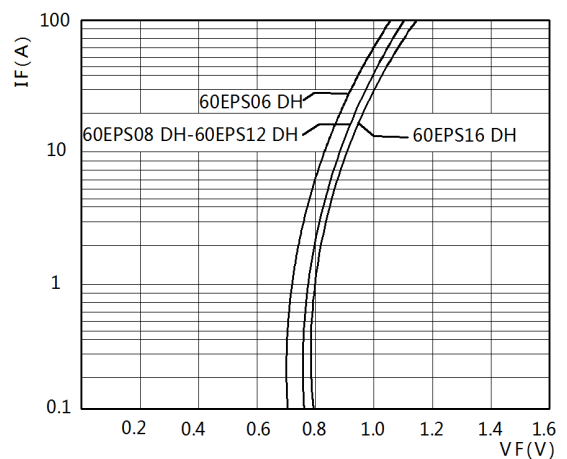
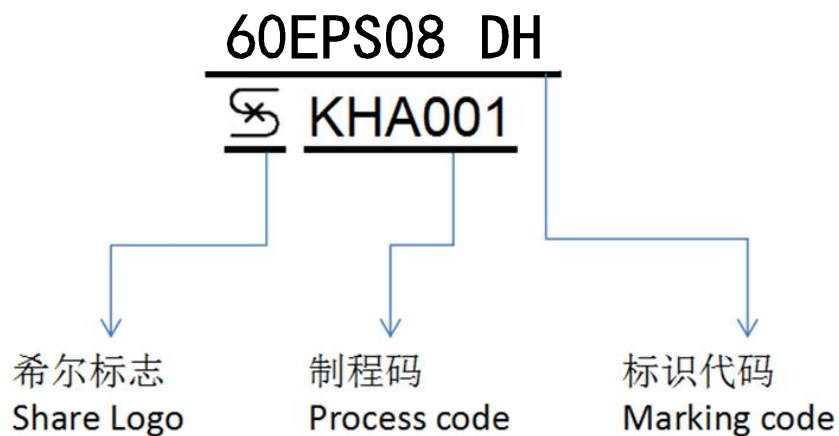


FIG4. Typical Forward Characteristics Per Bridge Element

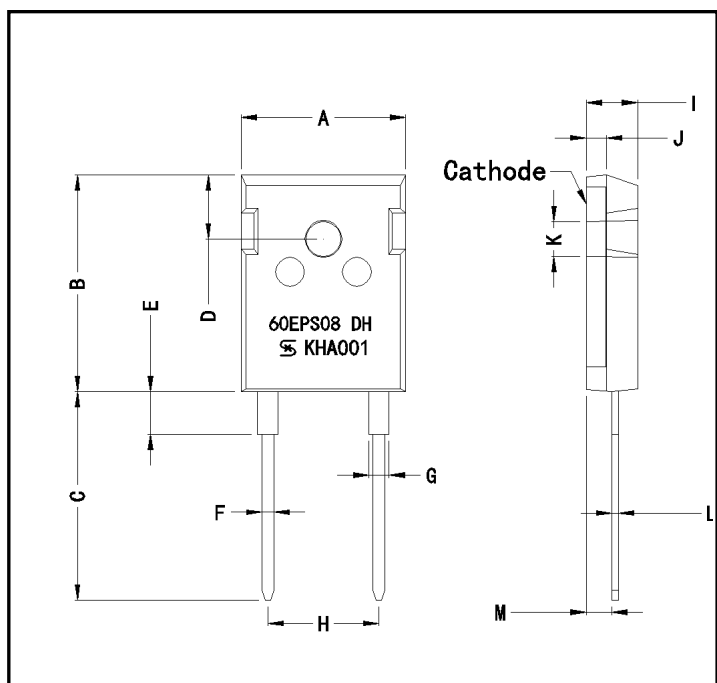
图 4. 典型正向特性



■ 标记图 Marking Diagram



■ 尺寸图 Dimension Drawing



Dim.	Unit(mm)		Unit(inch)	
	min	max	min	max
A	15.70	16.30	0.62	0.64
B	20.70	21.30	0.81	0.84
C	19.50	20.50	0.77	0.81
D	5.70	6.70	0.22	0.26
E	4.00	4.40	0.16	0.17
F	1.00	1.40	0.04	0.06
G	1.70	2.30	0.07	0.09
H	10.5	11.1	0.20	0.23
I	4.70	5.30	0.19	0.21
J	1.70	2.30	0.07	0.09
K	3.20	3.80	0.13	0.15
L	0.50	0.70	0.02	0.03
M	2.20	2.60	0.09	0.10

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