

60A,800V-1600V 高压整流二极管

60A,800V-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 AECQ-101 质量要求
Compliant to AECQ-101 quality requirement

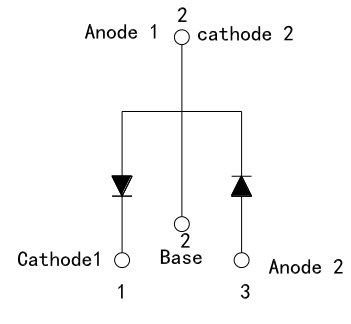
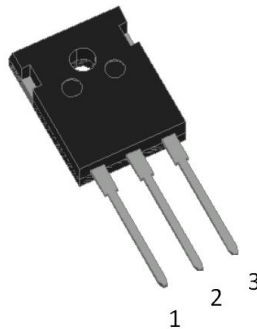
关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	60	A
V_{RRM}	800-1600	V
I_{FSM}	500	A
Package	TO-247	

■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 6.7 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	60EPS08 Z	60EPS10 Z	60EPS12 Z	60EPS16 Z	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	800	1000	1200	1600	V
平均整流输出电流 Average rectified output current	$I_{(AV)}$	60				A
带散热片, $T_C=100^\circ\text{C}$ with heatsink, $T_C=100^\circ\text{C}$						
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, $T_j=25^\circ\text{C}$, 单个二极管 Rating for fusing, 1ms<t<8.3ms, $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	1000				A^2s
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	60EPS08 Z	60EPS10 Z	60EPS12 Z	60EPS16 Z	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 _F	0.98				1.0	V
	IF=60A, 脉冲测试, 二极管的额定值 IF=60A,Pulse measurement,Rate of diode	V _F	1				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 _j =25°C	0.1	0.1	0.1	0.1	mA	
		T _j =125°C	1.0	1.0	1.0	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 _{θJC}	0.85	°C/W

■特性曲线 Characteristic Curve

FIG.1 . Derating Curve For Output Rectified Current

图 1. 电流降额曲线

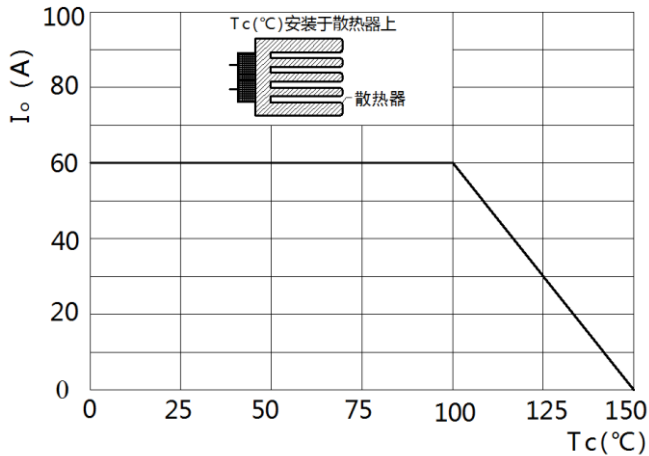


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

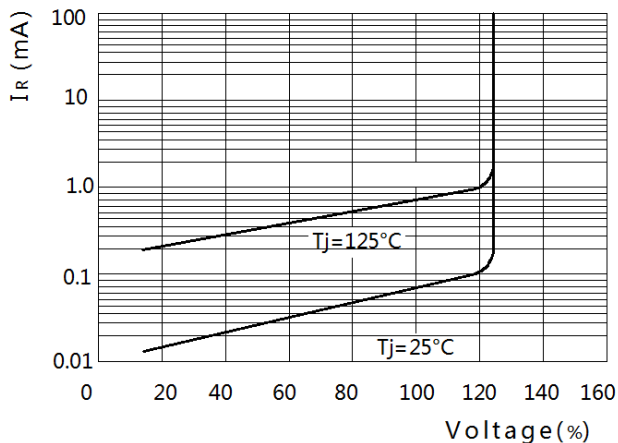


FIG.2 . Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

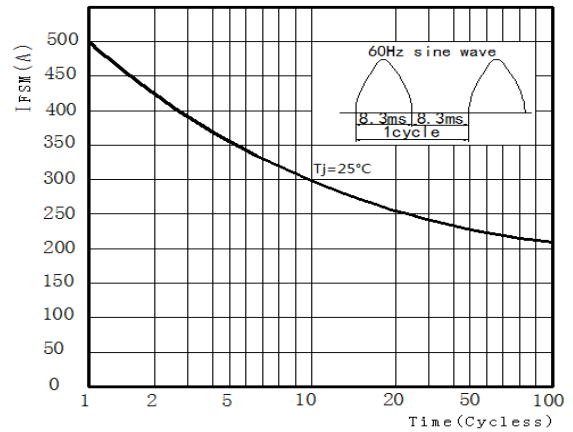
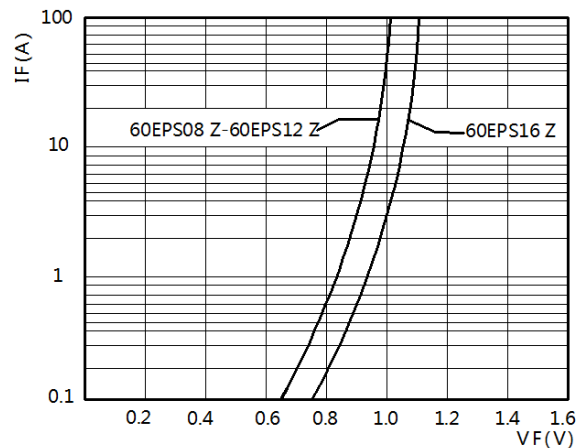
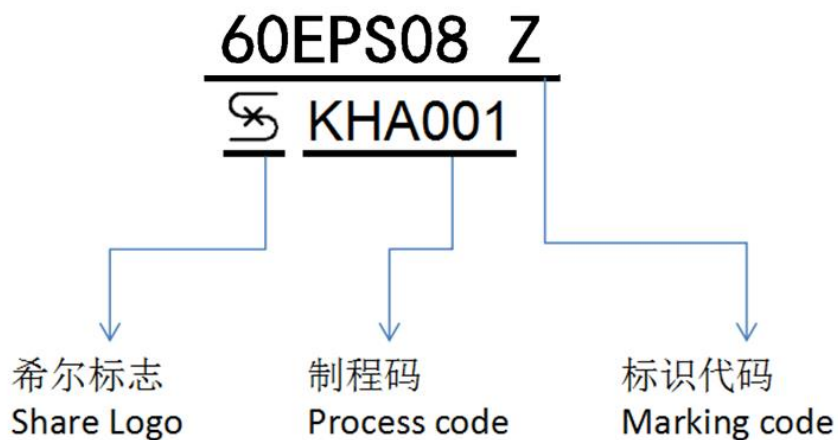


FIG4. Typical Forward Characteristics Per Bridge Element

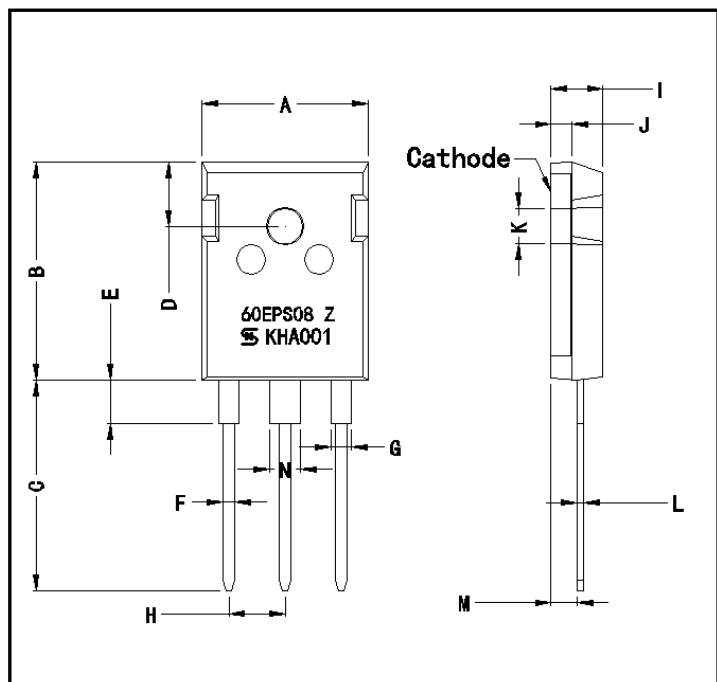
图 4. 典型正向特性



■ 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
N	2.70	3.30	0.11	0.13
H	5.20	5.80	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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