快速恢复高压整流硅堆组件

FAST RECOVERY HIGH VOLTAGE RECTIFIER SILICON STACK ASSEMBLY

AW050S200F

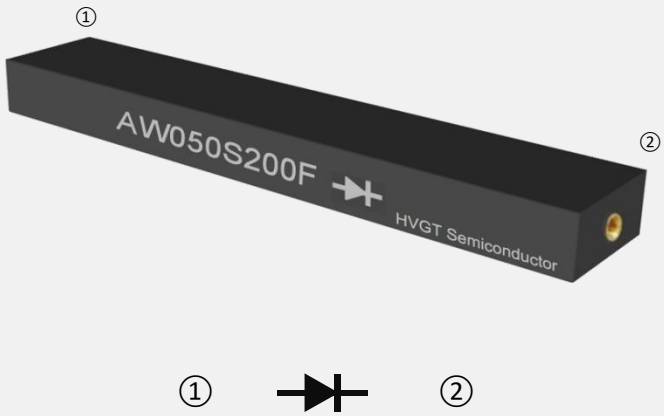
IFAVM: 5.0 A **VRRM:** 20 kV **TRR:** 75 nS

01 特点 / CHARACTERISTIC

- 高品质硅晶圆芯片结构。
  High quality silicon wafer chip structure.
- 快速恢复时间。
  Fast recovery time.
- 大电流高电压设计。
  High current and high voltage design.
- 雪崩特性。
  Avalanche characteristic.
- 芯片被灌注密封在注塑外壳中。
  The chip is sealed in an injection molded casing.
- 表面防腐处理。
  Have anticorrosion in the surface.
- UL94 V-0 额定材料。
  UL94 V-0 Rated Material.

02 参考外形 / REFERENCE SHAPE

HVGT Naming: HVC-2230D



03 应用 / APPLICATIONS

- 高压电源整流电路。
  High voltage power rectifier circuit.
- 高压测试设备电路。
  High voltage test equipment circuit.
- 静电除尘用高压整流。
  High voltage rectifier used in electrostatic cleaning.
- 其它高压整流电路。
  Other high voltage rectifier circuits.

04 主要数据 / PRIMARY CHARACTERISTICS

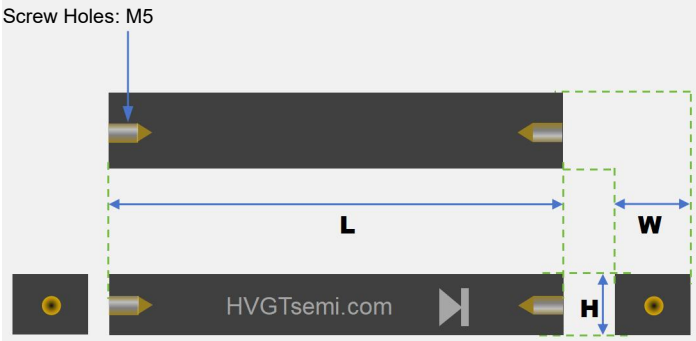
IFAVM	5.0	A
VRRM	20.0	kV
IFSM	150	A
VFM	28.8	V
IFM	5.0	uA
TRR	75	nS
TJ(max)	125	°C
TC-OP	-40~125	°C

05 机械数据 / MECHANICAL DATA

- 外形结构: UL94V-0 阻燃级环氧树脂模塑。
  Case: Rate Flame Retardant Epoxy resin molding.
- 端子: M5 内置纯铜螺母。
  Terminal: Built in pure copper nut.
- 极性: 二极管符号表示阴极端。
  Polarity: The diode symbol represents the cathode.
- 安装位置: 任意。
  Mounting: Any.
- 器件净重: **208.0** 克/只（大约）
  Net weight: gram (approx).

06 封装尺寸 / PACKAGE SIZE

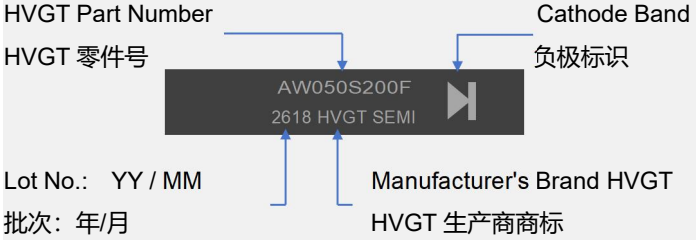
HVC-2230D Series



尺寸表 / Sine Table

Unit / Value / Code	Millimeters Value	Min.	Max.	Inches Value	Min.	Max.
L	220	215	225	8.661	8.465	8.858
W	30.0	28.0	32.0	1.181	1.102	1.260
H	20.0	18.0	22.0	0.787	0.709	0.866
SCREW	M5					

07 印记 / MARKING



广州市格特电子有限公司
GUANGZHOU GETE ELECTRONIC CO., LTD.
广州市格泰电子器件有限公司
GUANGZHOU GETAI ELECTRONIC DEVICES CO., LTD.
Web: Http://www.getedz.com
Email: sales@getedz.com sales@hvgtsemi.com
Web: Http://www.hvgtsemi.com
Tel: 0086-20-8184 9628 Fax: 0086-20-8184 9638

08 最大额定值和特性 / MAXIMUM RATINGS AND CHARACTERISTICS:

Ta=25°C, Ambient temperature unless stated otherwise.

Items	Symbols	Condition	Data Value	Units
最大反向重复电压 Maximum Repetitive Reverse Voltage	V_{RRM}	I_R=0.5uA	20.0	kV
非重复峰值反向电压 Non-Repetitive Peak Reverse Voltage	V_{RSM}	I_R=0.5uA	24.0	kV
最大平均正向电流 Maximum Average Forward Current	I_{FAVM}	T_C = 40°C	5.0	A
		T_{OIL} = 40°C	6.0	
非重复正向浪涌电流 Non-Repetitive Forward Surge Current	I_{FSM}	60Hz Half-Sine Wave; 8.3mS	150	A
最高器件结温 Maximum Junction Temperature	T_J		125	°C
允许工作环境温度范围 Allowable Operation Case Temperature Range	T_{C-OP}		-40~125	°C
储存温度范围 Storage Temperature Range	T_{STG}		-40~150	°C

09 电气特性 / ELECTRICAL CHARACTERISTICS

Ta=25°C, Ambient temperature unless stated otherwise.

Items	Symbols	Condition	Data Value	Units
最大正向电压压降 Maximum Forward Voltage Drop	V_{FM}	At I_{FAVM}	28.8	V
最大反向漏电电流	I_R 1	At V_{RRM}; T_A =25°C	5.0	uA
Maximum Reverse Current	I_R 2	At V_{RRM}; T_A =100°C	50.0	
最大反向恢复时间 Maximum Reverse Recovery Time	T_{RR}	At I_F= 2.5A; I_R= -5.0A; I_{RR}= -1.25A	75	nS
最大典型的结电容 Maximum Typical Junction Capacitance	C_J	At V_R=0V; f=1MHz	--	pF

10 说明 / NOTE

①规格如有更改，恕不另行通知。器件照片只是作为参考。Specifications subject to change without notice. Photo is representation only.

②标准包装数量：1 件/盒。Standard package quantity: 1PCS/in Box.

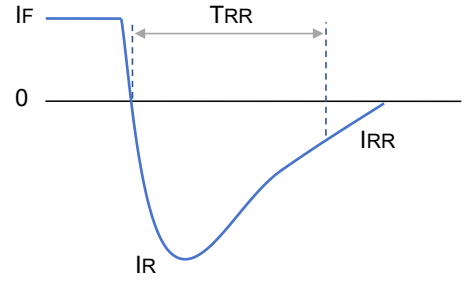
③本产品符合《欧州议会和欧盟理事会 2003 年 1 月 27 日关于限制在电子和电气设备中使用某些有害物质的指令 2002/95/EC》。The product accord with "Directive 2002/95/EC of the European parliament and of the council of 27 january 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment".

11 零件型号解释 / PART NUMBER NOTE

Part number prefix	IFAVM	Welded structure	VRRM	TRRM
AW	**050**	**S**	**200**	**G**
Silicon wafer chip Assembly Series	005=0.5A **050=5.0A** 100=10.0A 151=150.0A	AL=Axial Lead Structure RL=Radial Lead Structure **S=Screw Holes**	20kV	D = Standard Recovery Time G =100nS **F = 75nS** U = 50nS

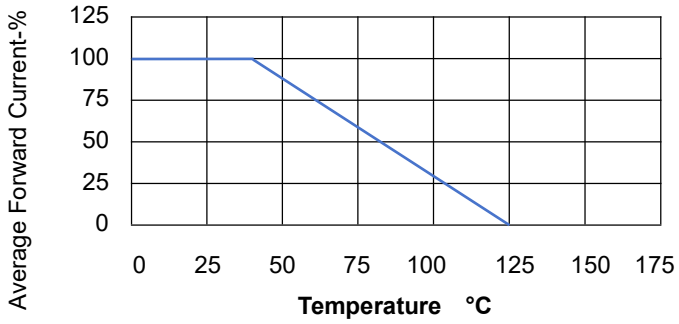
12 电气曲线图 / ELECTRICAL CHARACTERISTIC CURVE DIAGRAM

Reverse Recovery Measurement Waveform

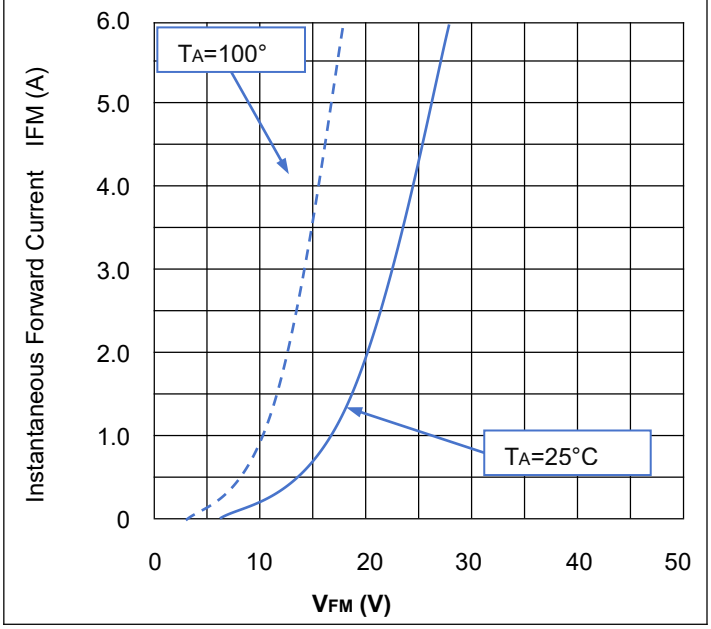


Typical data capture points: I_F =0.5I_R, I_R =(I_{FAVM}), I_{RR} = 0.25I_R

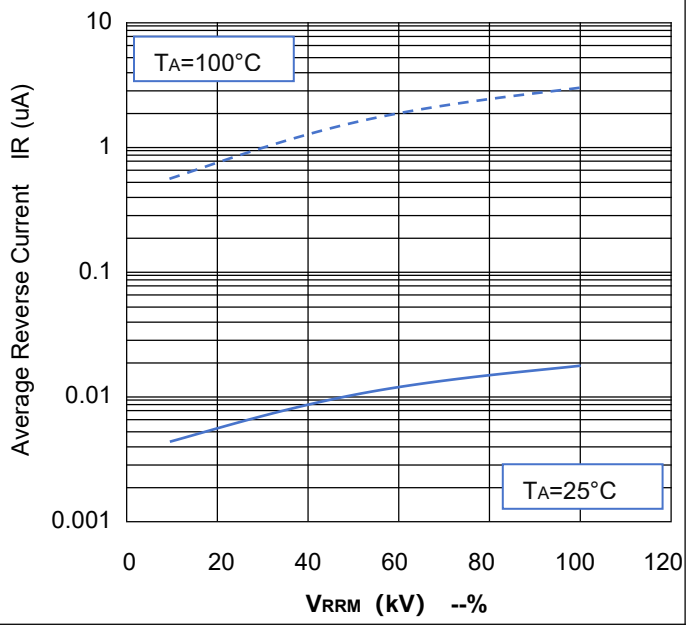
Forward Current Derating Curve



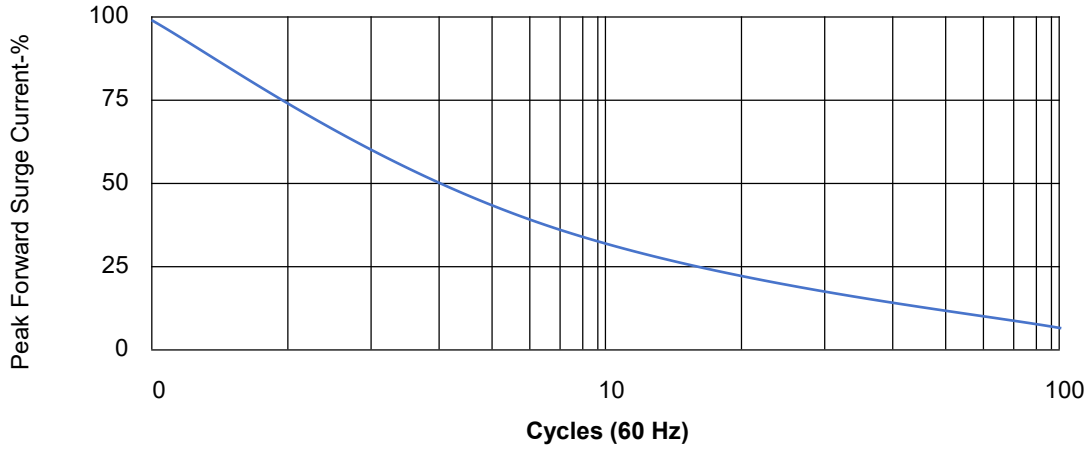
Forward Characteristics



Reverse Characteristics



Repetitive Surge Current Derating Curve



This curve represents the percentage of published maximum surge rating as a function of surge repetition.