

01 特点 / CHARACTERISTIC

- ▶ 高品质 GPP 硅片芯片结构。
High quality GPP silicon wafer chip structure.
- ▶ 快速恢复时间。
Fast recovery time.
- ▶ 大电流与高电压设计。
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.

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.

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: M6 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: 1175.0 克/只 (大约)
Net weight: gram (approx).

07 印记 / MARKING

HVGT Part Number
HVGT 零件号

Cathode Band
负极标识

Lot No.: YY / MM
批次: 年/月

Manufacturer's Brand HVGT
HVGT 生产商商标



02 参考外形 / REFERENCE SHAPE

HVGT Naming: **HVC-3085W**



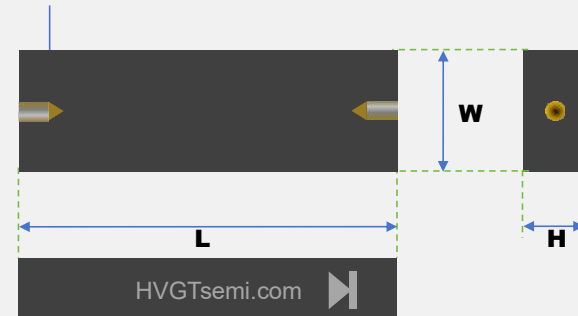
04 主要数据 / PRIMARY CHARACTERISTICS

IFAVM	10	A
VRRM	20	kV
IFSM	400	A
VFM	24	V
IFM	5.0	uA
TRR	100	nS
TJ(max)	150	°C
Tc-OP	-40~150	°C

06 封装尺寸 / PACKAGE SIZE

HVC-3085W Series

Screw Holes: M6



尺寸表 / Size Table

Unit	Millimeters			Inches		
CODE	Value	Min.	Max.	Value	Min.	Max.
L	300	295	305	11.81	11.61	12.01
W	85.0	82.0	88.0	3.346	3.228	3.465
H	35.0	33.0	37.0	1.378	1.299	1.457
SCREW	M6					

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	VRRM	Ir=0.5uA	20	kV
Maximum Repetitive Reverse Voltage				
非重复峰值反向电压	VRSM	Ir=0.5uA	24	kV
Non-Repetitive Peak Reverse Voltage				
最大平均正向电流	IFAVM	Tc = 50°C	10	A
Maximum Average Forward Current		TOIL = 50°C	12.5	
非重复正向浪涌电流	IFSM	60Hz Half-Sine Wave; 8.3mS	400	A
Non-Repetitive Forward Surge Current				
最高器件结温	TJ		150	°C
Maximum Junction Temperature				
允许工作环境温度范围	Tc-OP		-40~150	°C
Allowable Operation Case Temperature Range				
储存温度范围	TSTG		-55~175	°C
Storage Temperature Range				

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	VFM	At IFAVM	24.0	V
Maximum Forward Voltage Drop				
最大反向漏电电流	IR 1	At VRRM; TA =25°C	5.0	uA
Maximum Reverse Current	IR 2	At VRRM; TA =100°C	50.0	
最大反向恢复时间	TRR	At If= 2.5A; IR= -5.0A; IRR= -1.25A	100	nS
Maximum Reverse Recovery Time				
最大典型的结电容	CJ	At VR=0V; f=1MHz	--	pF
Maximum Typical Junction Capacitance				

10 说明 / NOTE

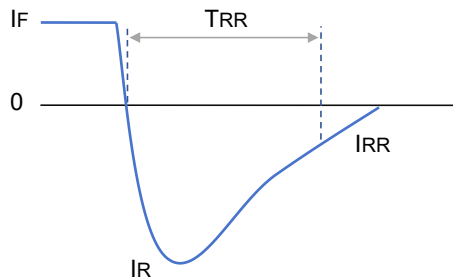
- ① 规格如有更改，恕不另行通知。器件照片只是作为参考。Specifications subject to change without notice. Photo is representation only.
- ② 标准包装数量：1 件/盒。Standard package quantity: 1PCS/in Box.
- ③ 本产品符合《欧洲议会和欧盟理事会 2003 年 1 月 27 日关于限制在电子和电气设备中使用某些有害物质的指令 2002/95/EC》。The product accord with “Directive 2002/95/EC of the European parliament 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
AG	100	S	200	G
GPP silicon wafer chip Assembly Series	005=0.5A 010=1.0A 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

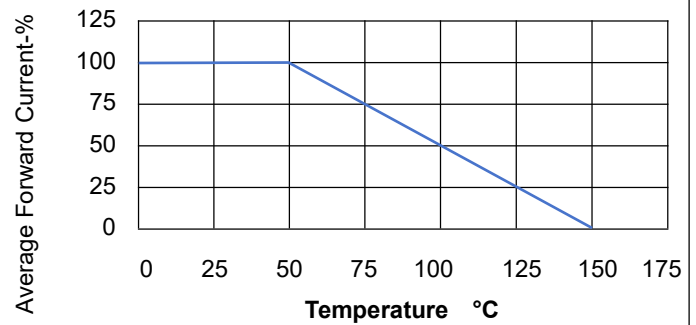
12 电气曲线图 / ELECTRICAL CHARACTERISTIC CURVE DIAGRAM

Reverse Recovery Measurement Waveform

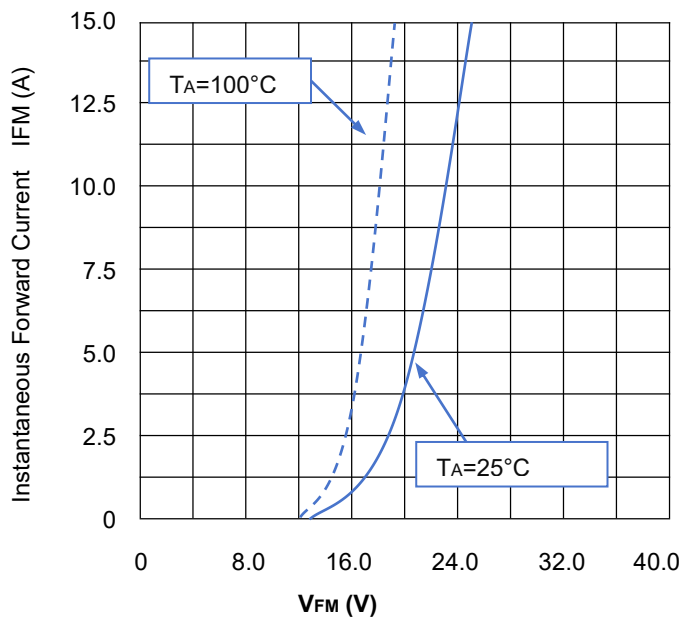


Typical data capture points: $I_F = 0.5I_R$, $I_R = (I_{FAVM})$, $I_{RR} = 0.25I_R$

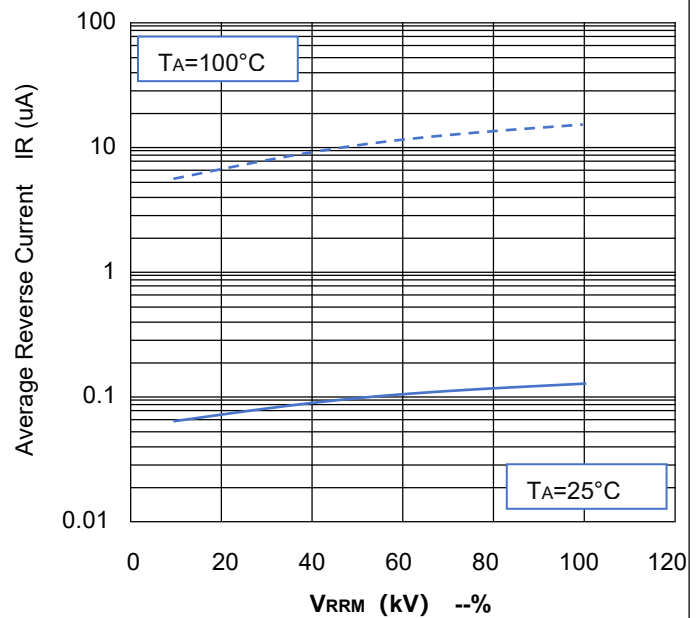
Forward Current Derating Curve



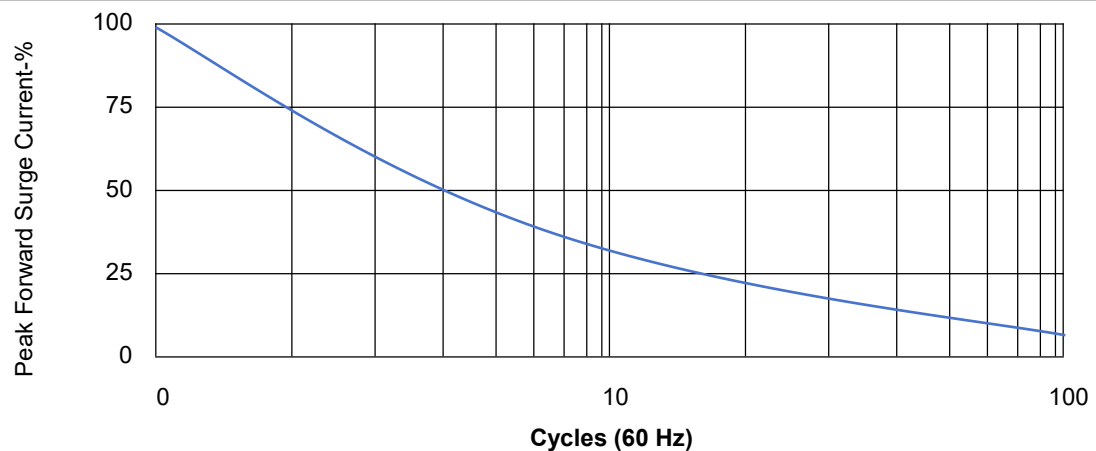
Forward Characteristics



Reverse Characteristics



Repetitive Surge Current Derating Curve



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