HVGT SEMICONDUCTOR

快速恢复高压整流二极管
AXIAL LEAD FAST RECOVERY HIGH VOLTAGE DIODE

2CL2FT

IFAVM: 60 mA **VRRM:** 40 kV **TRR:** 100 nS

01 特点 / CHARACTERISTIC

- 高速开关。 High speed switching.
- 快速恢复时间。 Fast recovery time.
- 高电压设计。 High voltage design.
- 高可靠性设计。 High reliability design.
- 真空模塑环氧树脂一体成型。 Vacuum epoxy resin integrated molding.
- 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: DO-415



03 应用 / APPLICATIONS

- X 光射线电源电压倍增电路。 X-ray power supply voltage doubling circuit.
- 高压测试设备电路。 High voltage test equipment circuit.
- 微波发射电源。 Microwave transmission power supply.
- 其它高压整流电路。 Other high voltage rectifier circuits.

04 主要数据 / PRIMARY CHARACTERISTICS

IFAVM	60	mA
VRRM	40	kV
IFSM	10	A
VFM	60	V
IFM	2.0	uA
TRR	100	nS
TJ(max)	125	°C
Tc	-40~150	°C

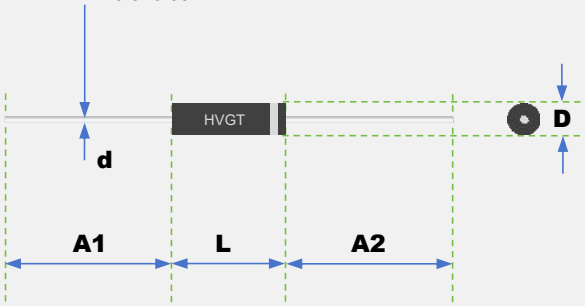
05 机械数据 / MECHANICAL DATA

外形结构: Case:	UL94V-0 Rate Flame Retardant		阻燃级环氧树脂模塑。 Epoxy resin molding.
端子: Terminal:	0.8mm		轴向引线。 Axis soft lead.
极性: Polarity:	圆环表示负极。 The circular ring represents the negative pole.		
安装位置: Mounting:	任意。 Any.		
器件净重: Net weight:	**0.65**	克/只（大约） gram (approx).	

06 封装尺寸 / PACKAGE SIZE

DO-415 Series

Lead Diameter 0.8±0.03



尺寸表 / Sine Table

Unit / Value / Code	Millimeters Value	Min.	Max.	Inches Value	Min.	Max.
D	4.2	4.0	4.4	0.165	0.167	0.173
L	15.0	14.8	15.2	0.591	0.583	0.598
A1=A2	22.0	22.0	--	0.866	0.866	--
d	0.8 ±0.025			0.31 ±0.001		

07 印记 / MARKING

HVGT Part Number HVGT 零件号

Cathode Band 负极标识



Manufacturer's Brand HVGT
HVGT 生产商商标

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	40.0	kV
非重复峰值反向电压 Non-Repetitive Peak Reverse Voltage	V_{RSM}	I_R=0.5uA	48.0	kV
最大平均正向电流 Maximum Average Forward Current	I_{FAVM}	T_C = 40°C	60	mA
		T_{OIL} = 55°C	100	
非重复正向浪涌电流 Non-Repetitive Forward Surge Current	I_{FSM}	60Hz Half-Sine Wave; 8.3mS	10	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		-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 100mA	60.0	V
最大反向漏电电流 Maximum Reverse Current	I_R 1	At V_{RRM}; T_A =25°C	2.0	uA
	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= 0.5I_R; I_R= -I_{FAVM}; I_{RR}= -0.25I_R	100	nS
最大典型的结电容 Maximum Typical Junction Capacitance	C_J	At V_R=0V; f=1MHz	0.8	pF
热阻抗 Thermal Resistance	$R_{TH(J-O)}$	In Oil	30	°C/W
热阻抗 Thermal Resistance	$R_{TH(J-A)}$	In Air	70	°C/W

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：1,000 件/盒。

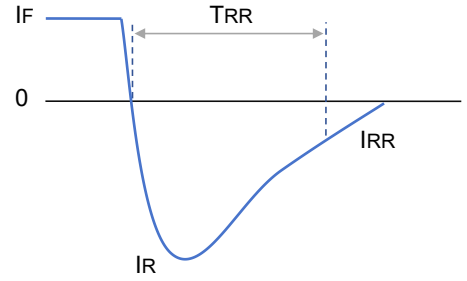
Standard package quantity: 1,000PCS/in Box.

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”.

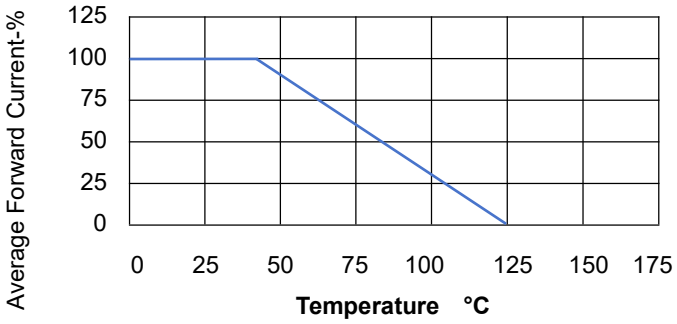
11 电气曲线图 / ELECTRICAL CHARACTERISTIC CURVE DIAGRAM

Reverse Recovery Measurement Waveform

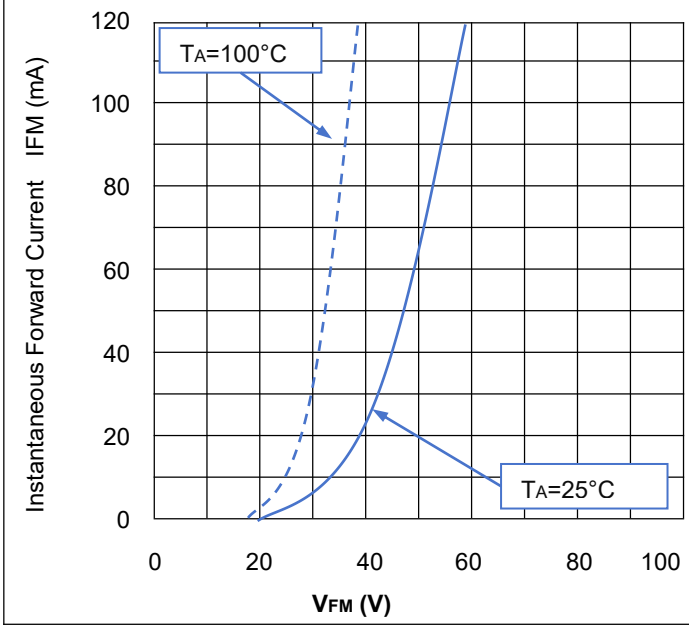


Typical data capture points: I_F =0.5I_R, I_R =(I_{FAVM}), I_{RR} = 0.25I_R

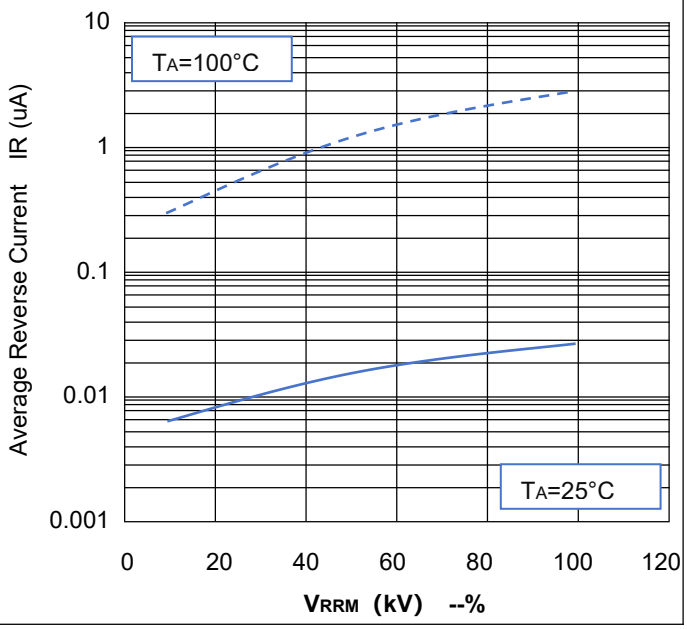
Forward Current Derating Curve



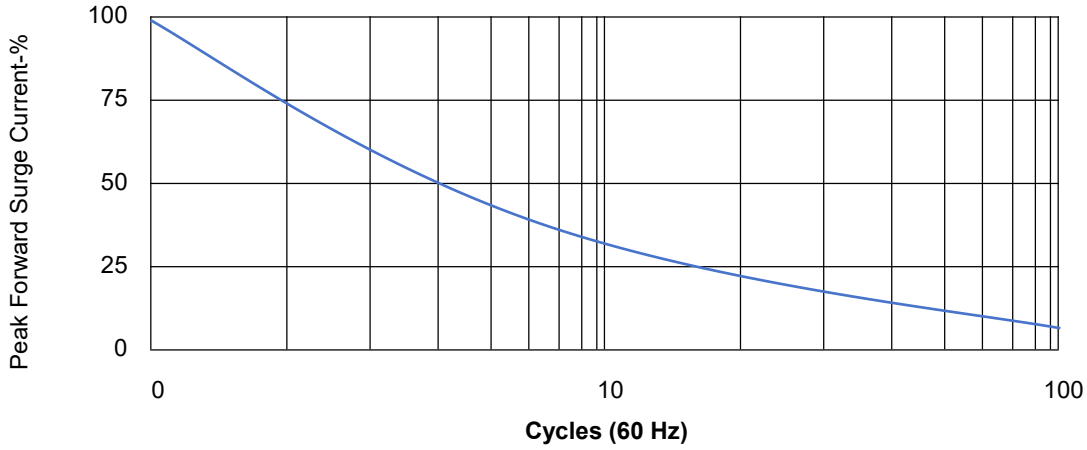
Forward Characteristics



Reverse Characteristics



Repetitive Surge Current Derating Curve



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