

**INTRODUCE:**

HVGT high voltage silicon rectifier diodes is made of high quality glass passivated chip and high reliability epoxy resin sealing structure, and through professional testing equipment inspection qualified after to customers.

**FEATURES:**

- ▶ Built in glass passivation chip.
- ▶ Ultra fast recovery time.
- ▶ Medium current.
- ▶ Ultra high voltage design.
- ▶ High reliability design.
- ▶ Have anticorrosion in the surface.
- ▶ UL94V-0 rated material epoxy resin vacuum forming.

**APPLICATIONS:**

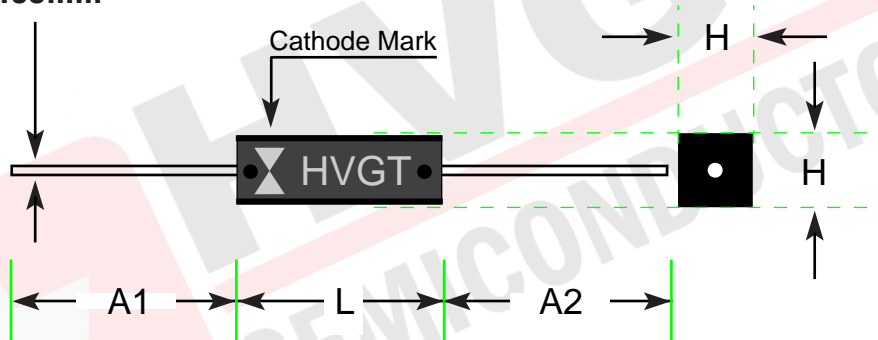
- ▶ X-ray power supply.
- ▶ Laser generator power supply.
- ▶ Voltage doubling circuit.
- ▶ Microwave transmission power supply.
- ▶ Other high voltage rectifier circuits.

**MECHANICAL DATA:**

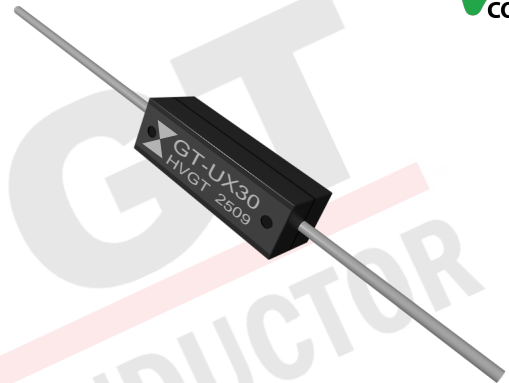
1. Shell: Epoxy resin molding.
2. Terminal: Axial copper lead.
3. Net weight: Approximately 2.60 grams.

**PACKAGE SIZE:**

**HVM-S Series**  
Lead Diameter 1.20±0.03mm



**REFERENCE SHAPE:**



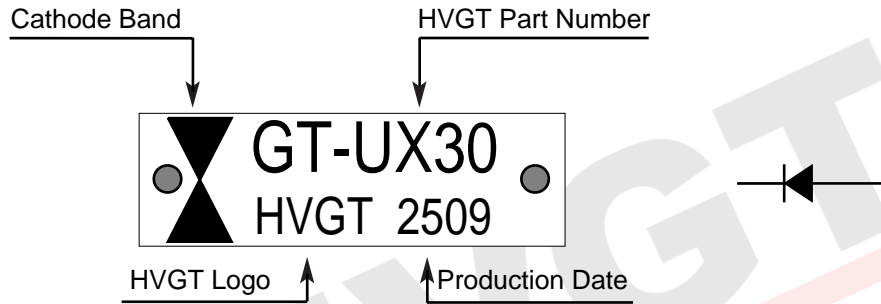
HVGT Name: HVM-S

**Primary Characteristics**

<b>IF (AV)</b>	150	mA
<b>VRRM</b>	30	kV
<b>IFSM</b>	30	A
<b>IRM</b>	0.5	uA
<b>VFM</b>	43.2	V
<b>TRR</b>	40	nS
<b>TJ (max.)</b>	150	° C

Dim.	Millimeters			Inches		
	Value	Min.	Max.	Value	Min.	Max.
H	7.0	6.8	7.2	0.276	0.268	0.283
L	21.0	20.8	21.2	0.827	0.819	0.835
A1,A2	22.0	22.0	--	0.866	0.866	--

**MARKING:**



**MAXIMUM RATINGS AND CHARACTERISTICS:** (Ta=25° C, Ambient temperature unless stated otherwise.)

Items	Symbols	Condition	Data Value	Units
Maximum Repetitive Reverse Voltage	VRRM	--	30	kV
Non-Repetitive Peak Reverse Voltage	VRSM	--	36	kV
Maximum Average Forward Current	IFAVM	TA = 55° C	150	mA
		TOIL= 55° C	270	mA
Non-Repetitive Forward Surge Current	IFSM	60Hz Half-Sine Wave; 8.3mS	30	A
Maximum Junction Temperature	TJ		150	° C
Allowable Operation Case Temperature	Tc		-40~150	° C
Storage Temperature	TSTG		-55~175	° C

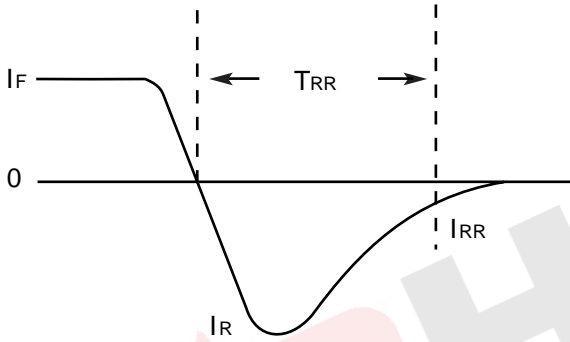
**ELECTRICAL CHARACTERISTICS:** (Ta=25° C, Ambient temperature unless stated otherwise.)

Items	Symbols	Condition	Data Value	Units
Maximum Forward Voltage Drop	VFM	At IFAVM	43.2	V
Maximum Reverse Current	IR1	At VRRM, TA =25° C	0.5	uA
	IR2	At VRRM, TOIL=100° C	20	uA
Maximum Reverse Recovery Time	TRR	IF=0.5IR ; IR=IFAVM ; IRR=0.25IR	40	nS
Typical Junction Capacitance	CJ	At VR = 0VDC, f = 1MHz	1.8	pF

**Note:** Specifications subject to change without notice. Photo is representation only.

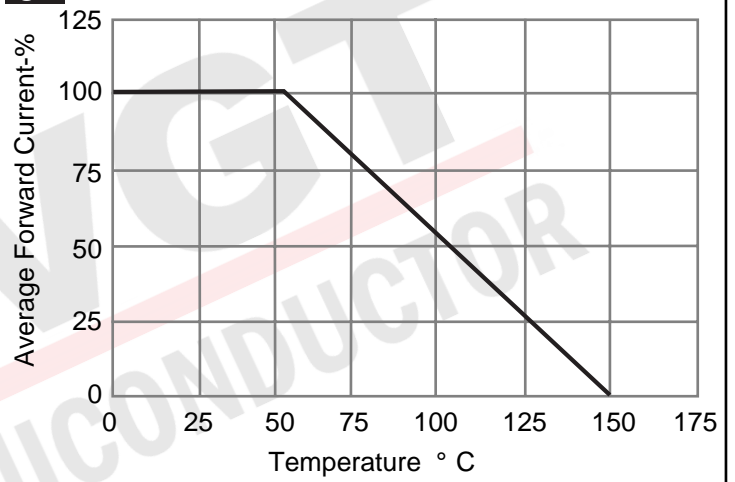
Standard package quantity:500PCS/in Box.

**FIGURE 01** Reverse Recovery Measurement Waveform

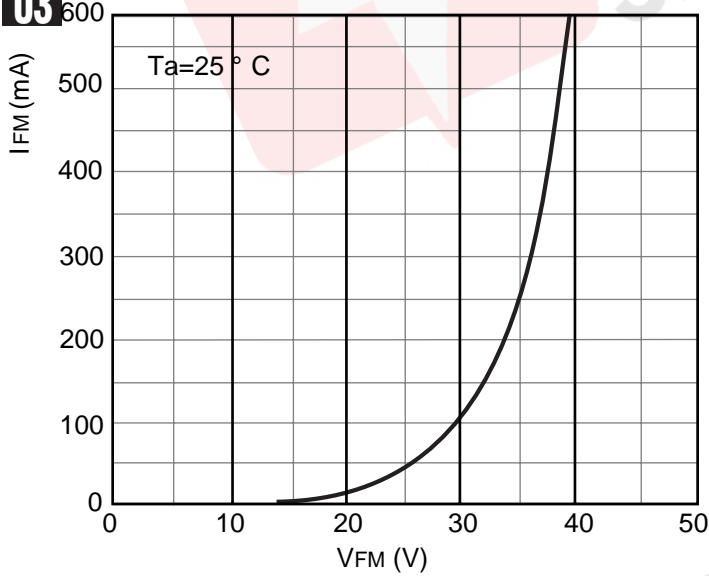


Typical data capture points:  $I_F = 0.5I_R$ ,  $I_R$ ,  $I_{RR} = 0.25I_R$   
 $I_R$  is typically the rated average forward current maximum ( $I_{FAVM}$ ) of the D.U.T

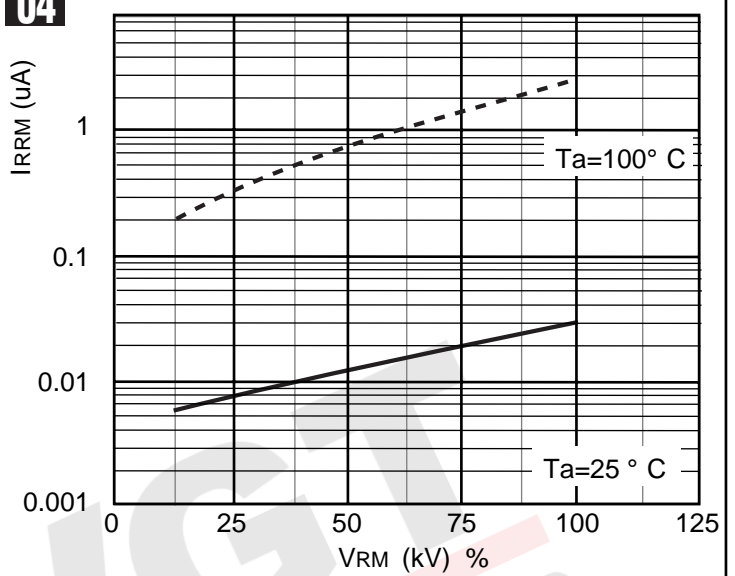
**FIGURE 02** Forward Current Derating Curve



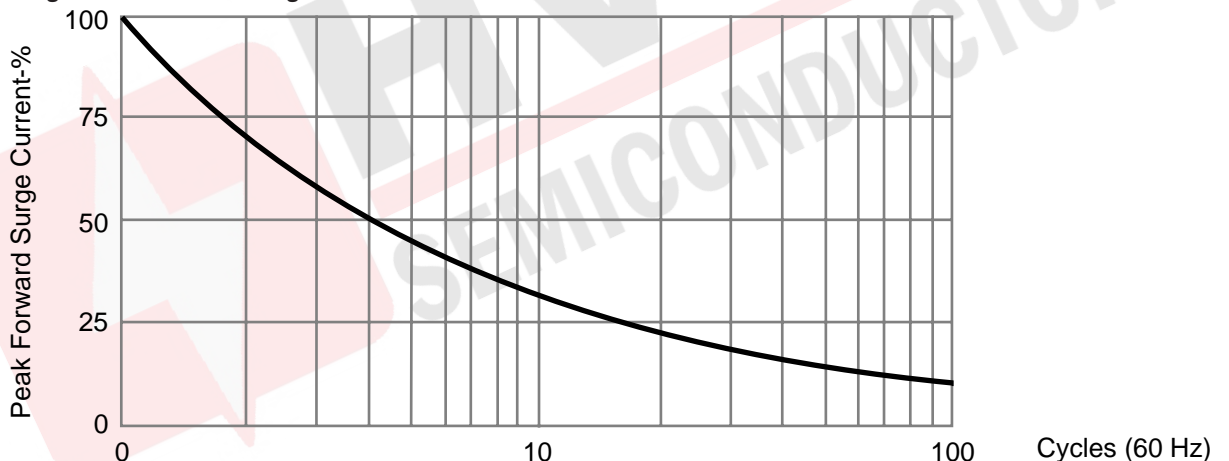
**FIGURE 03** Forward Characteristics



**FIGURE 04** Reverse Characteristics



**FIGURE 05** Repetitive Surge Current Derating Curve



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