Axial Lead Rectifier Assemblies

G10PE G12PE G15PE G20PE G25PE G30PE

20mA 100nS Series: 10kV ~ 30kV

INTRODUCE:

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

FEATURES:

- High quality silicon chip construction.
- Fast recovery time.
- Axial lead.
- Medium current design.
- High voltage and low current design
- Epoxy resin molded in vacuum.
- Have anticorrosion in the surface.
- ANSI/UL94 V-0 rated material.

APPLICATIONS:

- Air purification, negative ions.
- Electrostatic voltage doubling circuit.
- X-ray voltage doubling circuit.
- Other high voltage rectifier circuits.

MECHANICAL DATA:

- Case: Epoxy resin molding.
- Terminal: Axis soft lead.
- Net weight: 3.5 grams (approx).

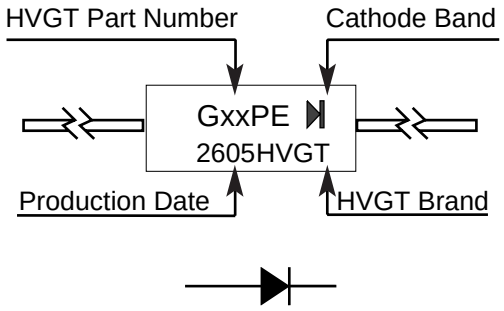
REFERENCE SHAPE:

RoHS COMPLIANT



HVGT SEMI Package Naming: HVS-060625H

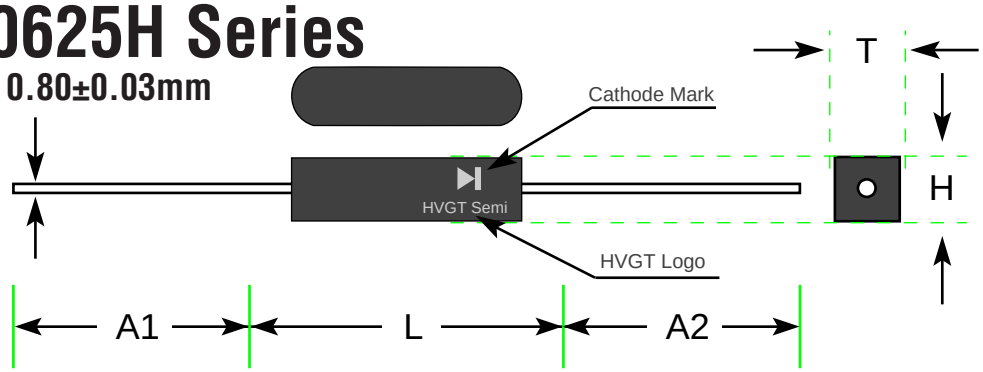
MARKING:



PACKAGE SIZE:

HVS-060625H Series

Lead Diameter 0.80±0.03mm



Dim.	Millimeters			Inches		
	Value	Min.	Max.	Value	Min.	Max.
T	6.3	6.1	6.5	0.250	0.240	0.256
H	6.3	6.1	6.5	0.250	0.240	0.256
L	25.4	23.4	27.4	1.000	0.921	1.079
A1 A2	20.0	20.0	--	0.787	0.787	--

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HVGT SEMICONDUCTOR

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

HVGT Part Number	V_{RRM} kV	V_{RSM} kV	I_{FAVM} mA	V_{FM} V	I_{R1} uA	I_{R2} uA	I_{FSM} A	T_{RR} nS
G10PE	10	12	20	23	0.2	20	3.0	100
G12PE	12	14	20	25	0.2	20	3.0	100
G15PE	15	18	20	28	0.2	20	3.0	100
G20PE	20	24	20	35	0.2	20	3.0	100
G25PE	25	30	20	42	0.2	20	3.0	100
G30PE	30	36	20	48	0.2	20	3.0	100

TEMPERATURE:

Maximum Junction Temperature: 150 ° C

Operating Temperature: -55 to 150 ° C

Storage Temperature: -55 to 175 ° C

SPECIFICATION DEFINITIONS:

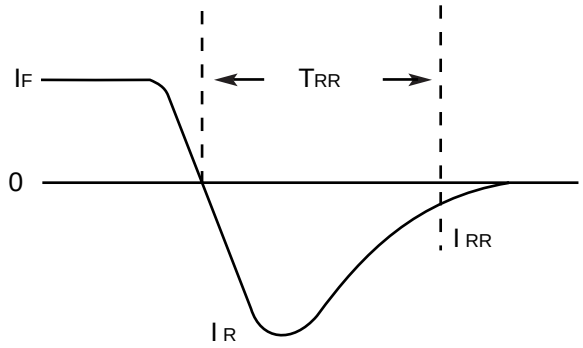
Items	Symbols	Condition
Maximum Repetitive Reverse Voltage	V_{RRM}	--
Maximum Average Forward Current	I_{FAVM1}	60Hz half-sine wave; Resistance load; Ta= 55° C
Maximum Average Forward Current	I_{FAVM2}	60Hz half-sine wave; Resistance load; Toil= 55° C
Maximum Leakage Current	I_{R1}	A t V_{RRM} ; Ta=25° C
Maximum Leakage Current	I_{R2}	A t V_{RRM} ; Ta=100° C
Maximum Forward Voltage Drop	V_{FM}	A t I_{FAVM}
Maximum Surge Current	I_{FSM}	A t 8.3mS, Single Half Sine
Reverse Surge Current	I_{RSM}	W P =1mS; Ta= 25° C; One-shot
Maximum Reverse Recovery Time	T_{RRM}	A t I_F= 0.5 I_{FAVM}; I_R = -I_{FAVM}; I_{RR} = -0.25 I_{FAVM}
Maximum Junction Capacitance	C_{JM}	A t V_R = 0VDC, f = 1MHz

Note: Specifications subject to change without notice. Photo is representation only.
Standard package quantity:500PCS/in Box.

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RATING & CHARACTERISTIC CURVES OF HIGH-VOLTAGE DIODES

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

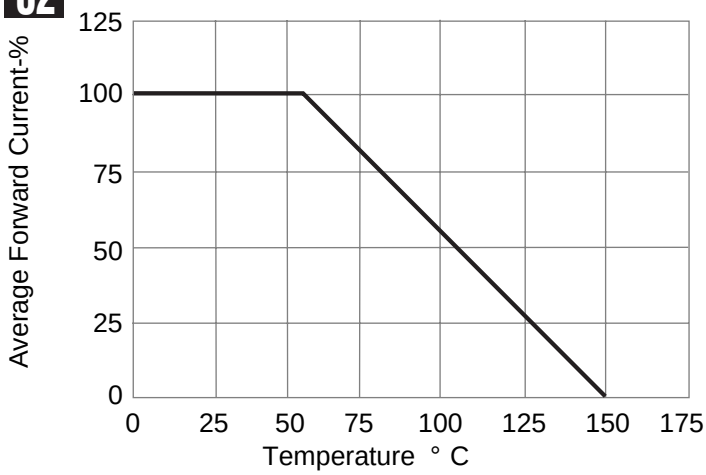


FIGURE 03 Positive Characteristic Curve

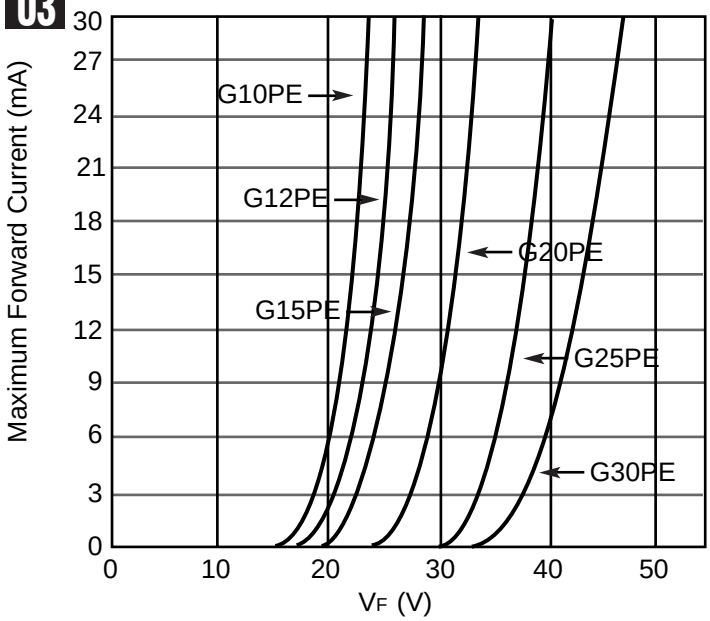


FIGURE 04 Reverse Leakage Current Curve With Voltage Variation

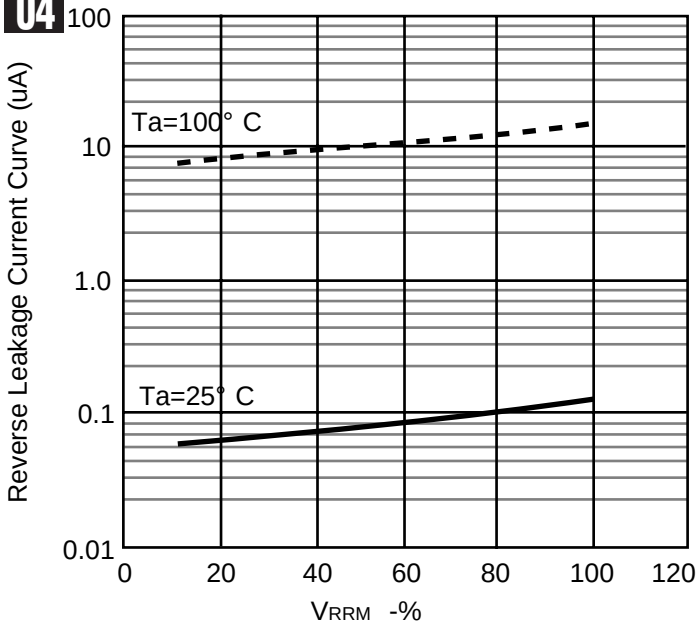
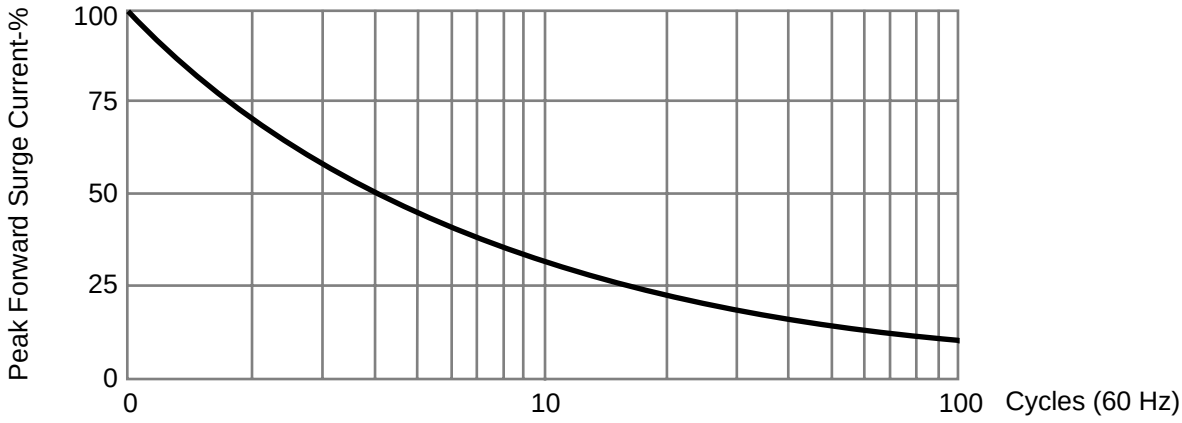


FIGURE 05 Repetitive Surge Current Derating Curve



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

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