

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:

1. High quality glass passivated chip structure.
2. Fast recovery time.
3. Medium power and high voltage design.
4. High frequency.
5. Epoxy resin molded in vacuum.
6. Have anticorrosion in the surface.
7. UL94 V-0 Rated Material.

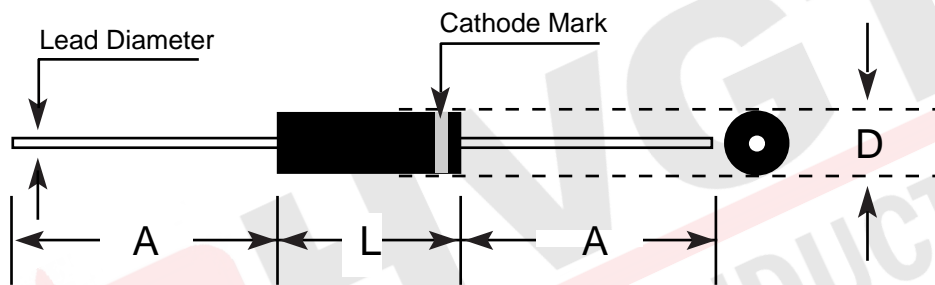
APPLICATIONS:

1. X-ray machine power supply.
2. Laser generator power supply.
3. Voltage doubling circuit.
4. Microwave transmission power supply.
5. Other high-voltage circuits.

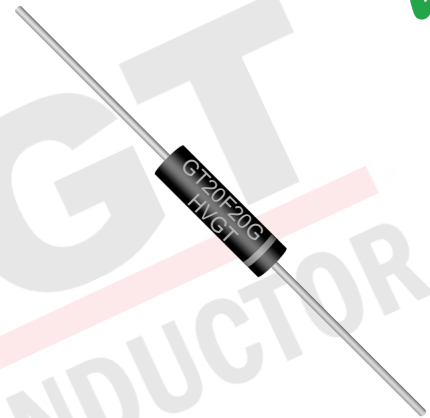
MECHANICAL DATA:

1. Case: Epoxy resin molding.
2. Terminal: Axis soft lead.
3. Net weight: 0.65 gram (approx).

PACKAGE SIZE:



REFERENCE SHAPE:



HVGT Name: DO-415

Primary Characteristics

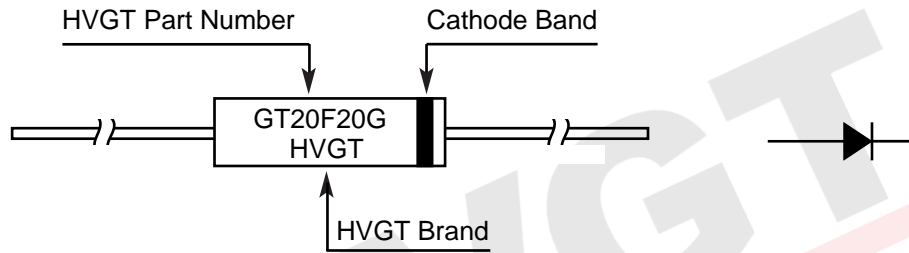
IF (AV)	200	mA
VRRM	20	kV
IFSM	30	A
IRM	1.0	uA
VFM	35	V
TRR	75	nS
TJ (max.)	150	° C

DO-415 Series

Lead Diameter 0.8± 0.03

Dim.	Millimeters			Inches		
	Value	Min.	Max.	Value	Min.	Max.
D	4.2	4.0	4.4	0.165	0.157	0.173
L	15.0	14.8	15.2	0.591	0.583	0.598
A	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	V _{RRM}	--	20	kV
Non-Repetitive Peak Reverse Voltage	V _{RSM}	--	24	kV
Maximum Average Forward Current	I _{FAVM}	TA = 55° C	200	mA
		TOIL= 55° C	480	mA
Non-Repetitive Forward Surge Current	I _{FSM}	60Hz Half-Sine Wave; 8.3mS	30	A
Maximum Junction Temperature	T _J		150	° C
Allowable Operation Case Temperature	T _C		-40~150	° C
Storage Temperature	T _{STG}		-55~175	° C

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

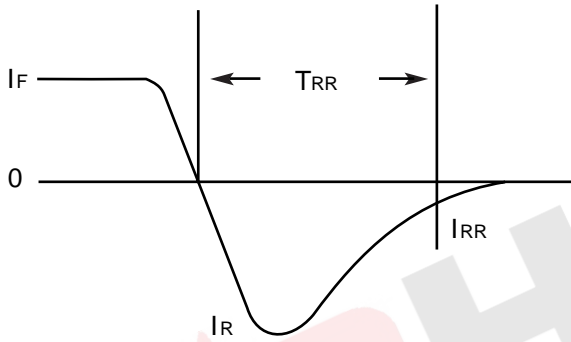
Items	Symbols	Condition	Data Value	Units	
Maximum Forward Voltage Drop	V _{FM}	At I _{FAVM}	35	V	
Maximum Reverse Current	I _{R1}	At V _{RRM} , TA =25° C	1.0	uA	
	I _{R2}	At V _{RRM} , TOIL =100° C	20	uA	
Maximum Reverse Recovery Time	T _{RR}	IF=100mA; IR= -200mA; IRR = -50mA	75	nS	
Typical Junction Capacitance	C _J	At VR = 0VDC, f = 1MHz	3.0	pF	
Thermal Resistance	Junction to Oil	R _{TH(J-O)}	On glass-epoxy Board, In Oil	30	° C/W
	Junction to Ambient	R _{TH(J-A)}	On glass-epoxy Board, In Air	70	° C/W

NOTE:

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

Specifications subject to change without notice. Photo is representation only.

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

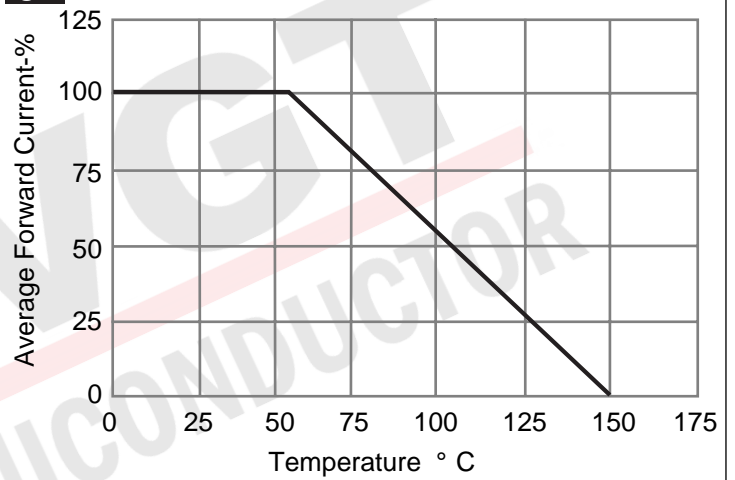


FIGURE 03 Forward Characteristics

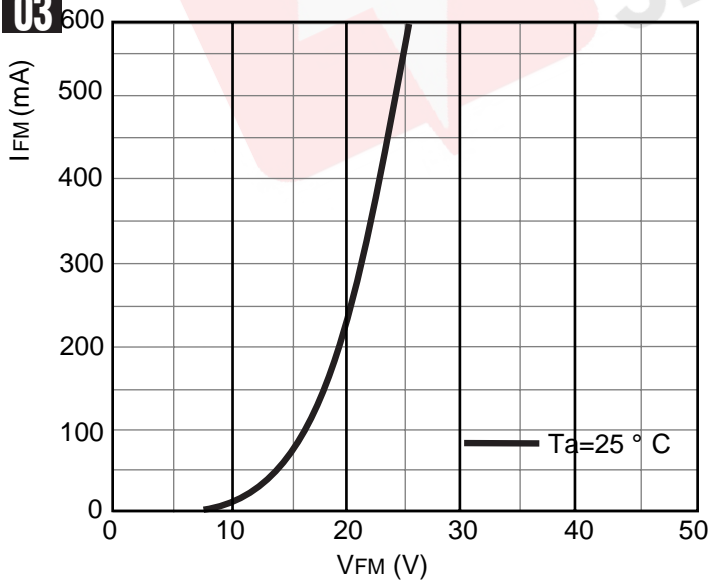


FIGURE 04 Reverse Characteristics

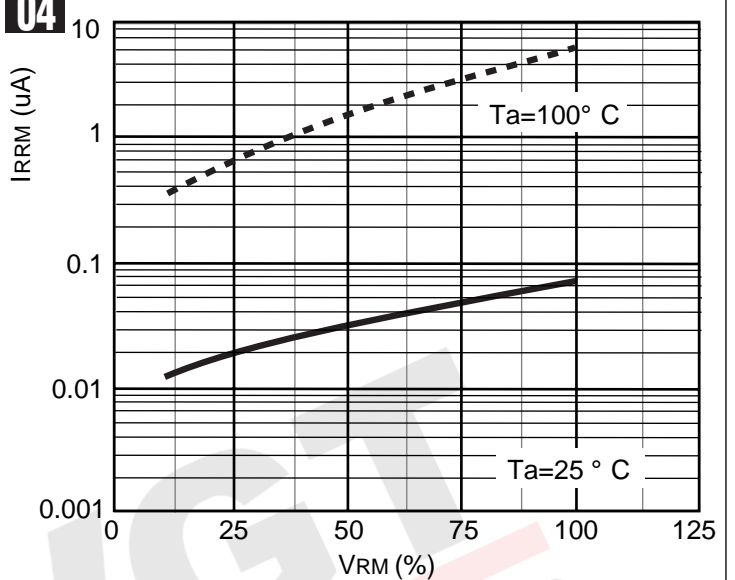
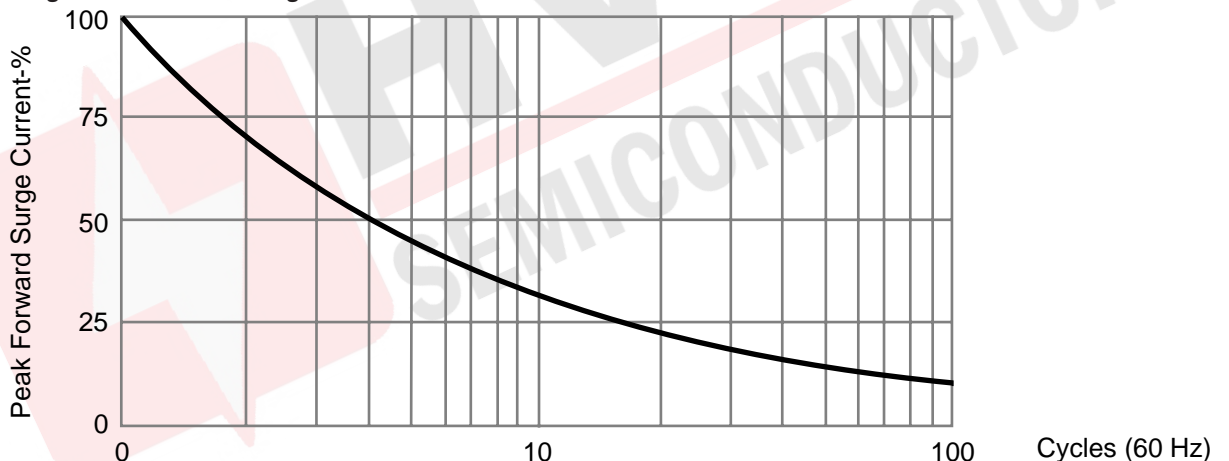


FIGURE 05 Repetitive Surge Current Derating Curve



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