

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:

1. High quality silicon chip construction.
2. Fast recovery time.
3. High voltage and low current design
4. Epoxy resin molded in vacuum.
5. Have anticorrosion in the surface.
6. UL94 V-0 Rated Material.

APPLICATIONS:

1. Air purification, negative ions.
2. Electrostatic voltage doubling circuit.
3. Copier and X-ray.
4. Other high voltage rectifier circuits.

MECHANICAL DATA:

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

REFERENCE SHAPE:

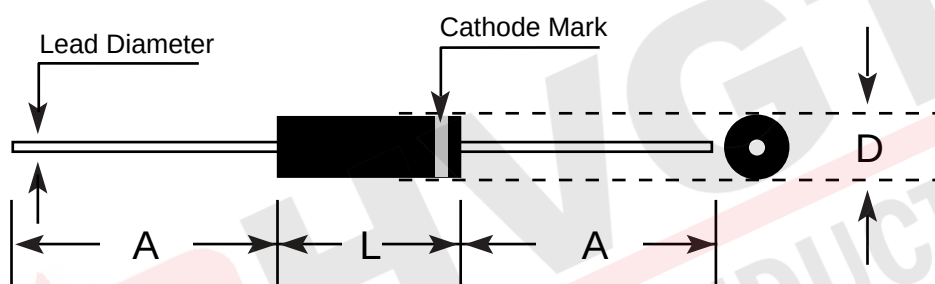


HVGT Name: DO-415

Primary Characteristics

IF (AV)	100	mA
VRRM	15	kV
IFSM	10	A
IRM	5.0	uA
VFM	35	V
TRR	150	nS
TJ (max.)	125	° C

PACKAGE SIZE:



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	--

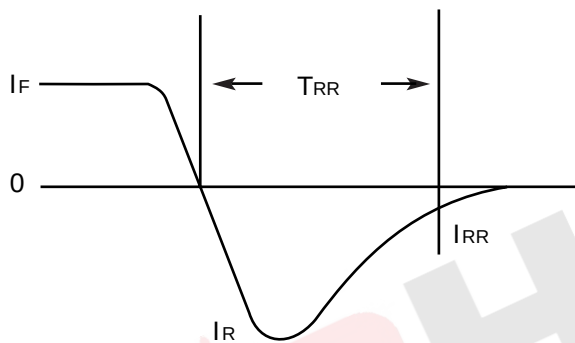
MAXIMUM RATINGS AND CHARACTERISTICS: (Ta=25° C, Ambient temperature unless stated otherwise.)

Items	Symbols	Condition	Data Value	Units
Maximum Repetitive Reverse Voltage	V_{RRM}	--	15	kV
Non-Repetitive Peak Reverse Voltage	V_{RSM}	--	18	kV
Maximum Average Forward Current	I_{FAVM}	$T_A = 40^{\circ} C$	100	mA
		$T_{OIL} = 55^{\circ} C$	180	mA
Non-Repetitive Forward Surge Current	I_{FSM}	60Hz Half-Sine Wave; 8.3mS	10	A
Maximum Junction Temperature	T_J		125	$^{\circ} C$
Allowable Operation Case Temperature	T_C		-40~125	$^{\circ} C$
Storage Temperature	T_{STG}		-40~150	$^{\circ} C$

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} , $T_A = 25^{\circ} C$	5.0	μA
	I_{R2}	At V_{RRM} , $T_A = 100^{\circ} C$	50	μA
Maximum Reverse Recovery Time	T_{RR}	$I_F = 2 mA$; $I_R = 4 mA$; $I_{RR} = 1mA$	150	nS
Typical Junction Capacitance	C_J	At $V_R = 0VDC$, $f = 1MHz$	2.5	pF

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

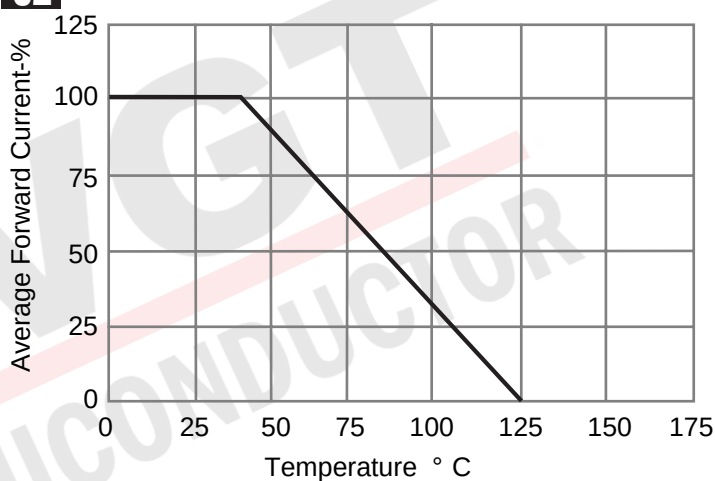


FIGURE 03 Forward Characteristics

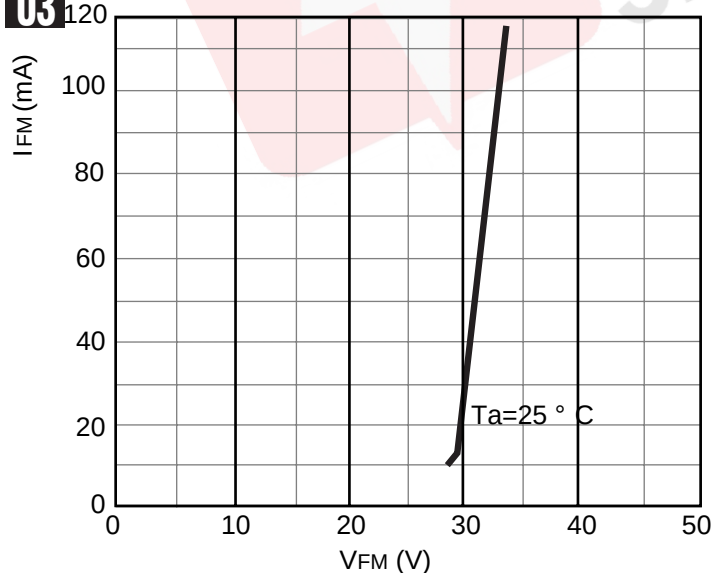


FIGURE 04 Reverse Characteristics

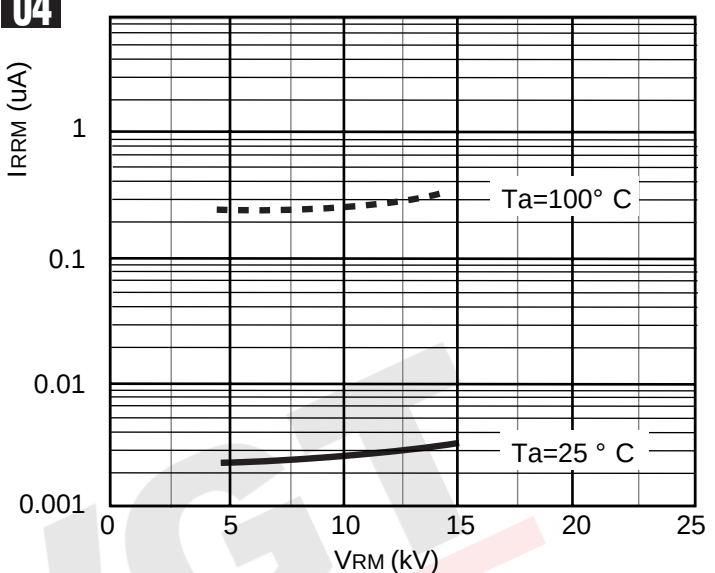
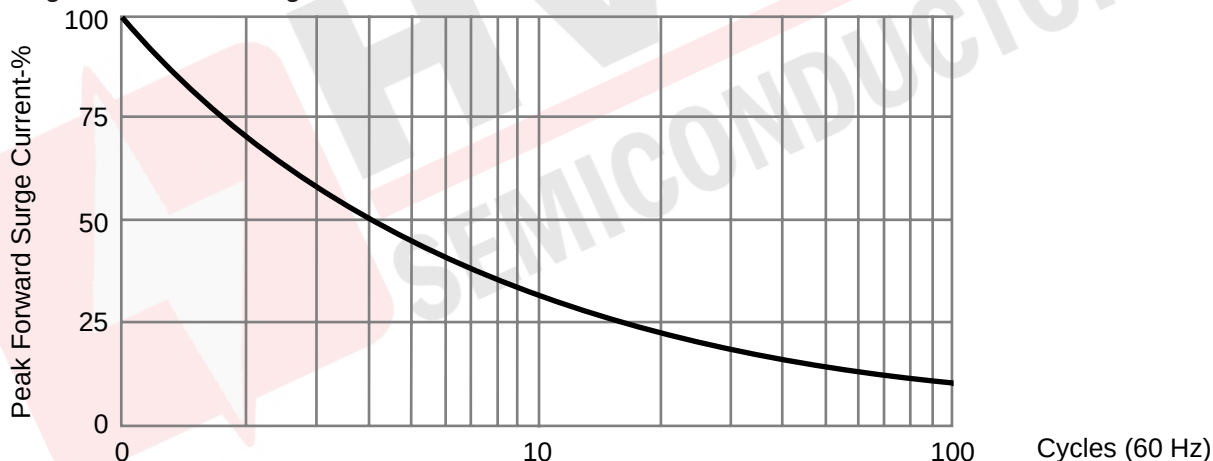


FIGURE 05 Repetitive Surge Current Derating Curve



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