

**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 reliability design.
2. Small volume.
3. High frequency.
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuumHave anticorrosion in the surface.

**APPLICATIONS:**

1. High voltage multiplier circuit
2. Electrostatic generator circuit .
3. General purpose high voltage rectifier.
4. Negative ion generator.

**MECHANICAL DATA:**

1. Case: epoxy resin molding.
2. Terminal: welding axis.
3. Net weight: 0.65 grams (approx).

**SHAPE DISPLAY:**

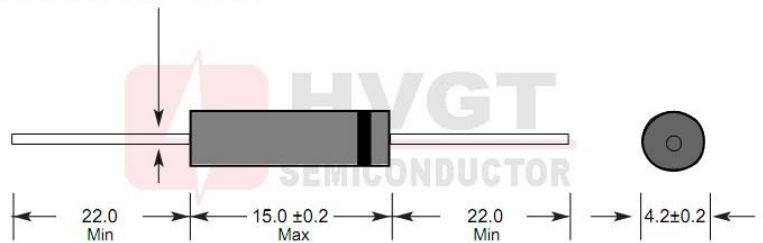


**SIZE: (Unit:mm)**

**HVGT NAME: DO-415**

**DO-415 Series**

Lead Diameter 0.8mm ±0.03



Unit:mm

**MAXIMUM RATINGS AND CHARACTERISTICS:** (Absolute Maximum Ratings)

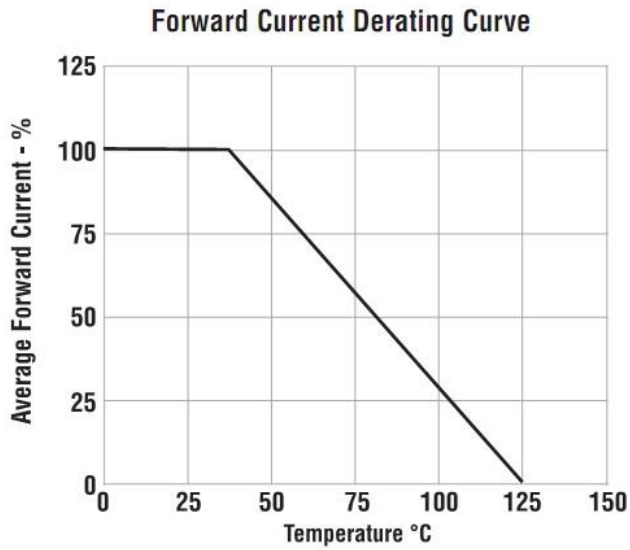
Items	Symbols	Condition	Data Value	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	$T_A=25^{\circ}C$	12	kV
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	$T_A=25^{\circ}C$	--	kV
Average Forward Current Maximum	$I_{FAVM}$	$T_A=40^{\circ}C$	60	mA
		$T_{OIL}=55^{\circ}C$	120	mA
Non-Repetitive Forward Surge Current	$I_{FSM}$	$T_A=25^{\circ}C$ ; 50Hz Half-Sine Wave; 8.3mS	10	A
Junction Temperature	$T_J$		125	$^{\circ}C$
Allowable Operation Case Temperature	$T_C$		-40~+125	$^{\circ}C$
Storage Temperature	$T_{STG}$		-40~+125	$^{\circ}C$

**ELECTRICAL CHARACTERISTICS:**  $T_A=25^{\circ}C$  (Unless Otherwise Specified)

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	$V_{FM}$	at $25^{\circ}C$ ; at $I_{FAVM}$	20	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}C$ ; at $V_{RRM}$	2.0	$\mu A$
	$I_{R2}$	at $100^{\circ}C$ ; at $V_{RRM}$	50	$\mu A$
Maximum Reverse Recovery Time	$T_{RR}$	at $25^{\circ}C$ ; $I_F=0.5I_R$ ; $I_R=I_{FAVM}$ ; $I_{RR}=0.25I_R$	150	nS
Junction Capacitance	$C_J$	at $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$	2.3	pF

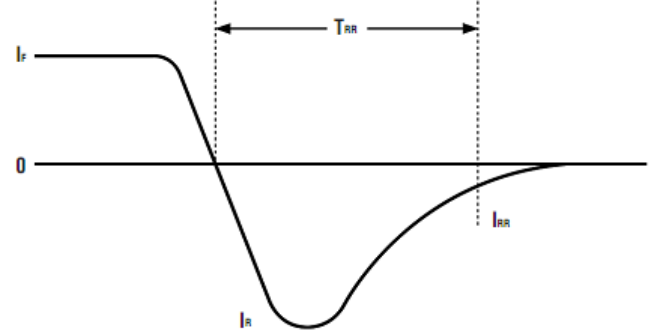
**Fig 1**

**Forward Current Derating Curve**



**Fig 2**

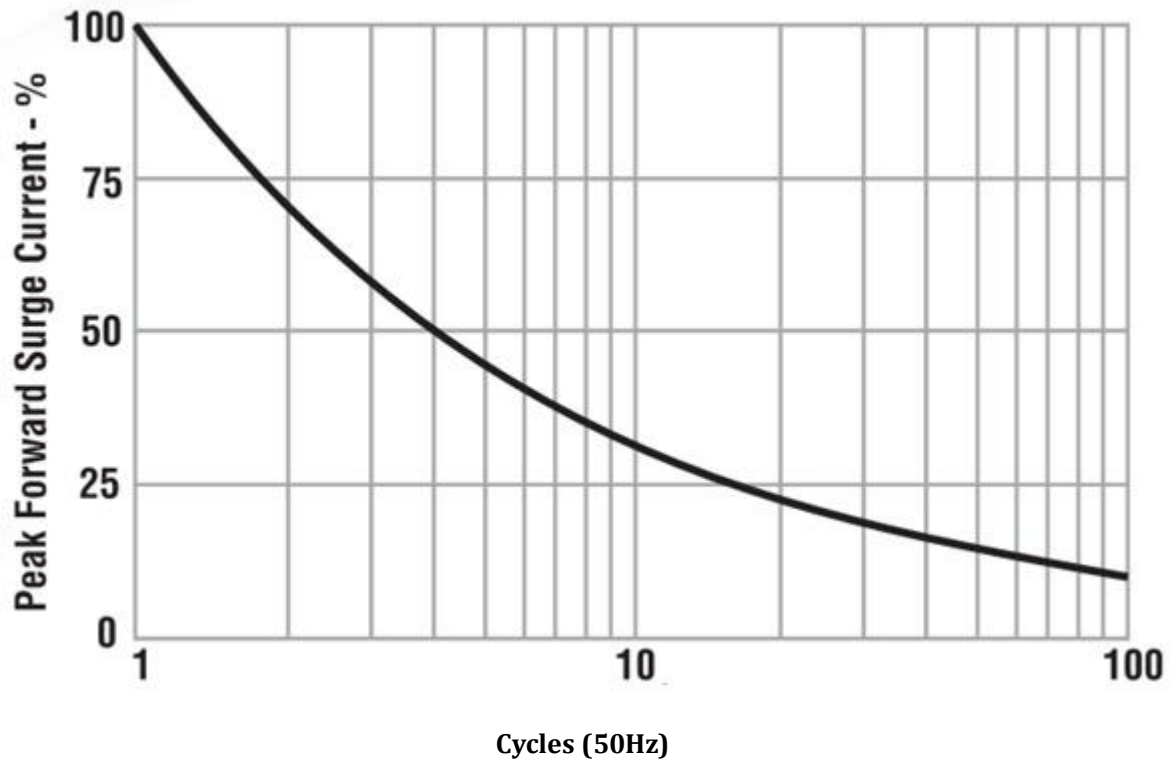
**Reverse Recovery Measurement Waveform**



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

**Fig 3**

**Non-Repetitive Surge Current**



Marking	Type	Code	Cathode Mark
	2CL2FH	2CL2FH HVGT	