

**INTRODUCE:**

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

**FEATURES:**

1. High reliability design.
2. Low VF.
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. General purpose high voltage rectifier.
3. Rectification for X-ray generator high voltage power supply.

**MECHANICAL DATA:**

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

**SHAPE DISPLAY:**

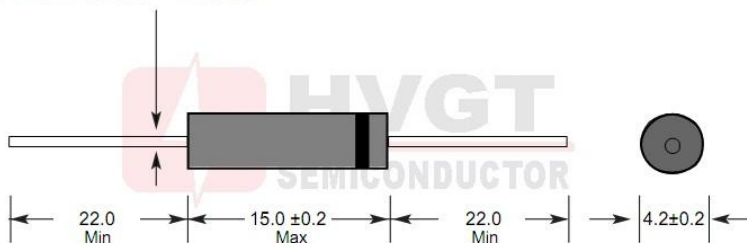


**SIZE: (Unit:mm)**

**HVGT NAME: DO-415**

**DO-415 Series**

Lead Diameter 0.8mm ±0.03



Unit:mm

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

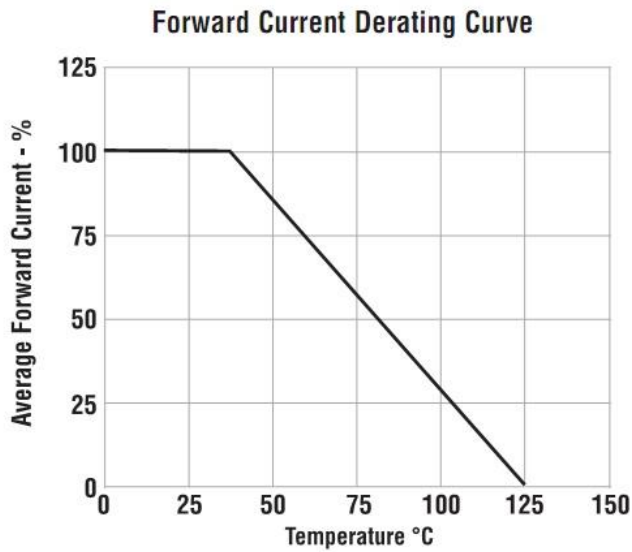
Items	Symbols	Condition	Data Value	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	$T_A=25^{\circ}C$	20	kV
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	$T_A=25^{\circ}C$	--	kV
Average Forward Current Maximum	$I_{FAVM}$	$T_A=40^{\circ}C$	200	mA
		$T_{OIL}=55^{\circ}C$	--	mA
Non-Repetitive Forward Surge Current	$I_{FSM}$	$T_A=25^{\circ}C$ ; 50Hz Half-Sine Wave; 8.3mS	15	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 $I_{FAVM}$	35	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}C$ ; at $V_{RRM}$	2.0	$\mu A$
	$I_{R2}$	at $100^{\circ}C$ ; at $V_{RRM}$	10	$\mu A$
Maximum Reverse Recovery Time	$T_{RR}$	at $25^{\circ}C$ ; $I_F=0.5I_R$ ; $I_R=I_{FAVM}$ ; $I_{RR}=0.25I_R$	100	nS
Junction Capacitance	$C_J$	at $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$	15	pF

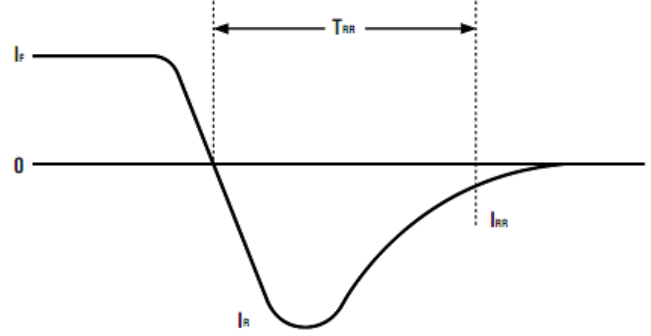
**Fig 1**

**Forward Current Derating Curve**



**Fig 2**

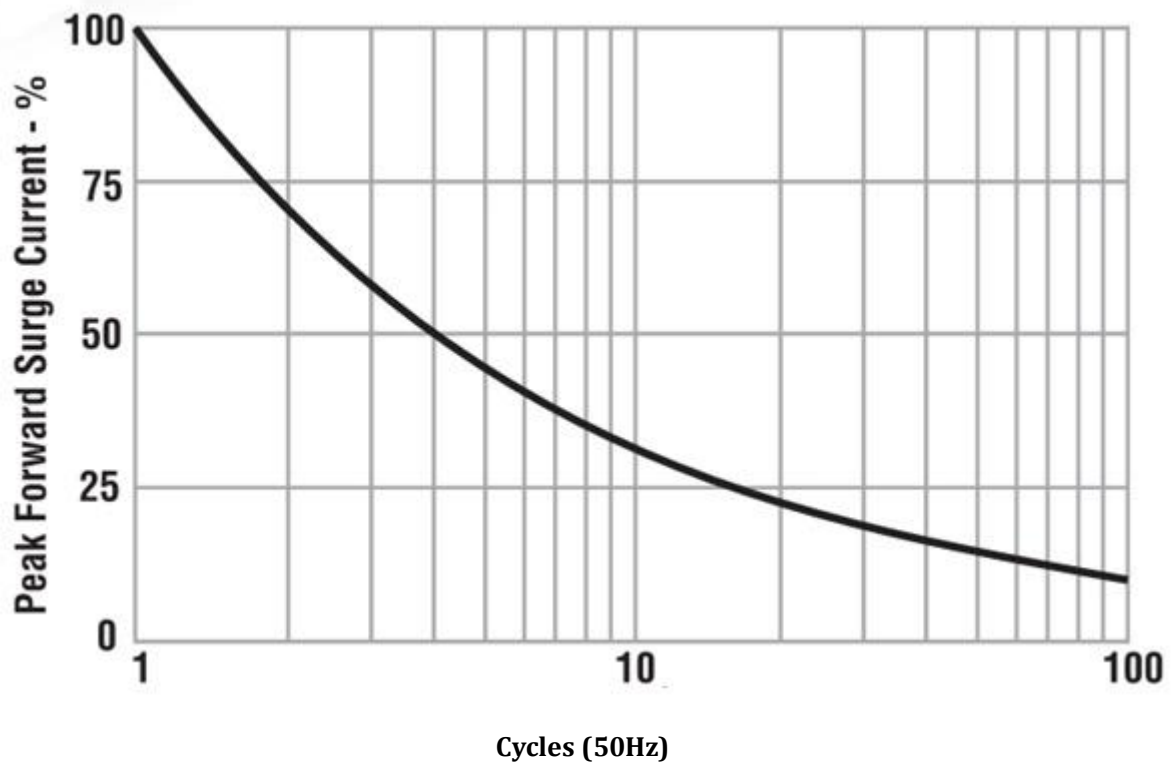
**Reverse Recovery Measurement Waveform**



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
	ESJC37-20	ESJC37-20 HVGT	