

**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. Fast recovery.
2. High reliability design.
3. Low current, high voltage.
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuumHave anticorrosion in the surface.

**APPLICATIONS:**

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

**MECHANICAL DATA:**

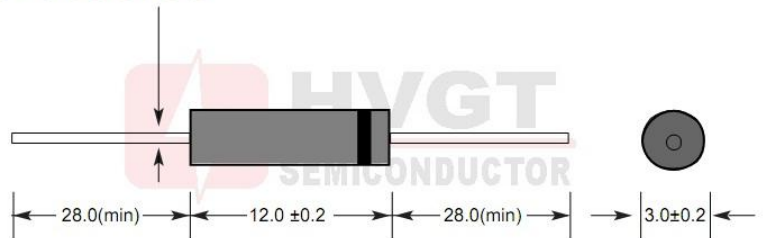
1. Case: epoxy resin molding.
2. Terminal: welding axis.
3. Net weight: 0.35 grams (approx).

**SHAPE DISPLAY:**



**SIZE: (Unit:mm)** **HVGT NAME: DO-312**

**DO-312 Series**  
Lead Diameter 0.6±0.03



Unit:mm

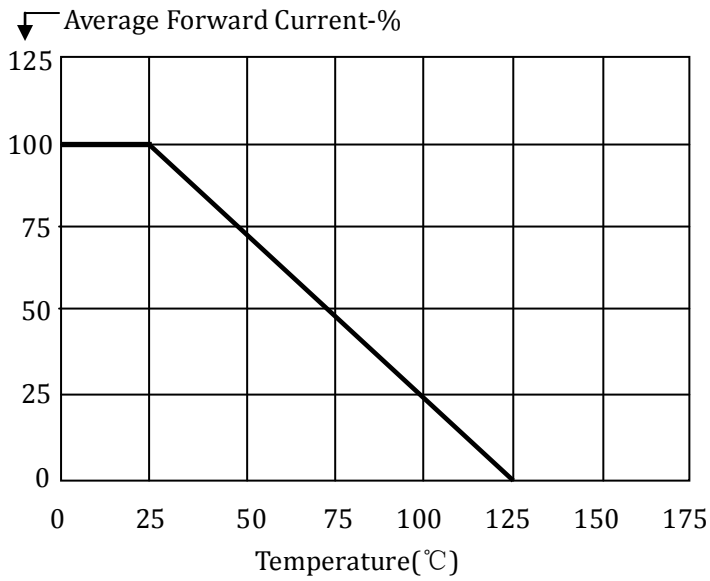
**MAXIMUM RATINGS AND CHARACTERISTICS:** (Absolute Maximum Ratings)

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	$I_{FAVM}$	$T_A=25^{\circ}C$	5.0	mA
		$T_{OIL}=55^{\circ}C$	--	mA
Non-Repetitive Forward Surge Current	$I_{FSM}$	$T_A=25^{\circ}C$ ; 60Hz Half-Sine Wave; 8.3mS	0.5	A
Junction Temperature	$T_J$		125	$^{\circ}C$
Allowable Operation Case Temperature	$T_c$		-40~+125	$^{\circ}C$
Storage Temperature	$T_{STG}$		-40~+125	$^{\circ}C$

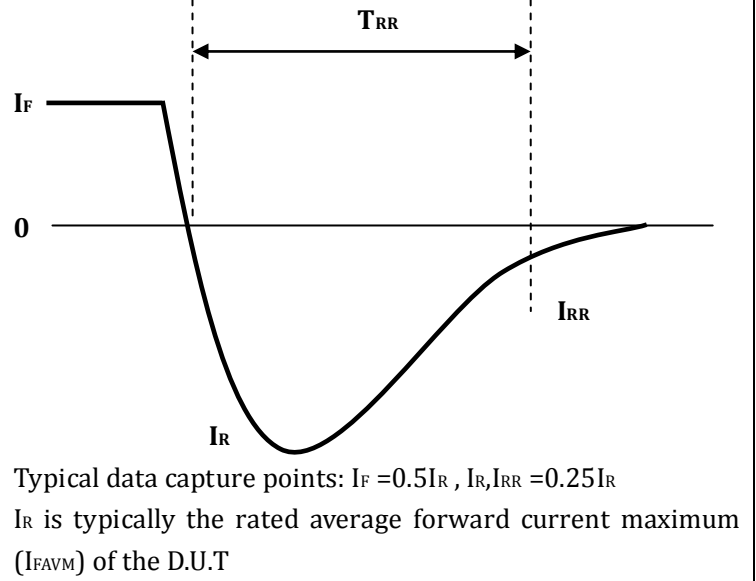
**ELECTRICAL CHARACTERISTICS:**  $T_A=25^{\circ}C$  (Unless Otherwise Specified)

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	$V_{FM}$	at $25^{\circ}C$ ; at $I_{FAVM}$	45	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}C$ ; at $V_{RRM}$	2.0	$\mu A$
	$I_{R2}$	at $100^{\circ}C$ ; at $V_{RRM}$	5.0	$\mu A$
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 $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$	1.0	pF

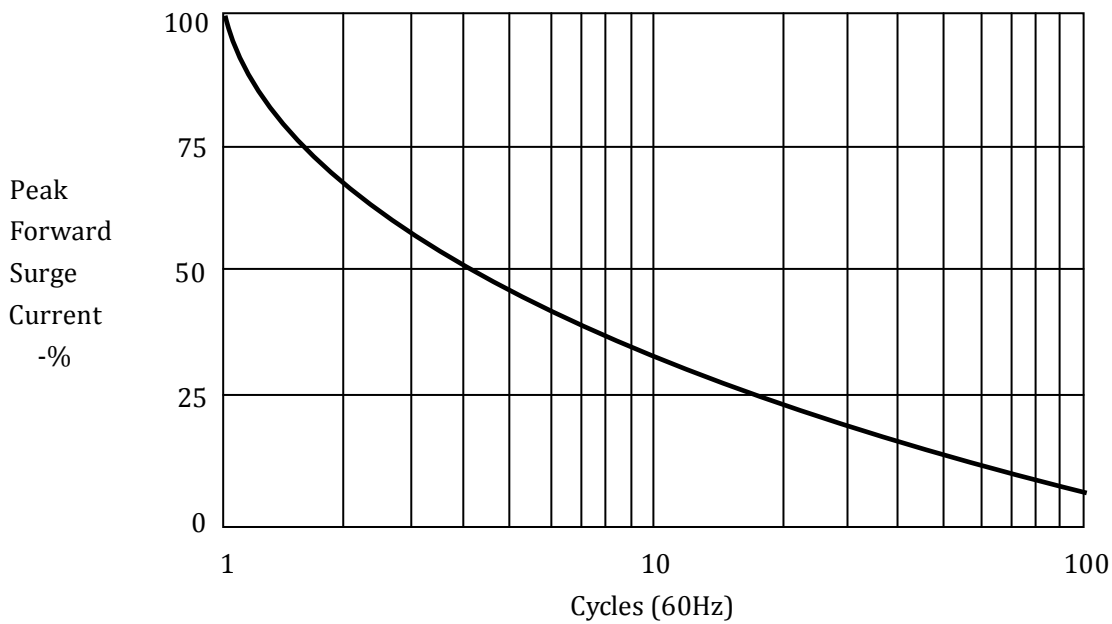
**Forward Current Derating Curve**




**Reverse Recovery Measurement Waveform**



**Non-Repetitive Surge Current**



Marking	Type	Code	Cathode Mark
	SHV-20	GT-V20	
Packing in bulk	500Pcs/bag	4000Pcs/box	24000Pcs/Out box
Size:	180x120mm	230x150x72mm	321x248x263mm
Gross weight:	175g	1530g	9530g

**Note:** The suffix "TR" of this model indicates the tape packaging.  
 Not "TR" means bulk packaging.