

**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 overload surge capability.
2. Avalanche Characteristic.
3. Medium Current, Low Forward Voltage
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuumHave anticorrosion in the surface.

**APPLICATIONS:**

1. Rectifier for high voltage power supply.
2. General purpose high voltage rectifier. .
3. Rectification for X-ray generator high voltage power supply.

**MECHANICAL DATA:**

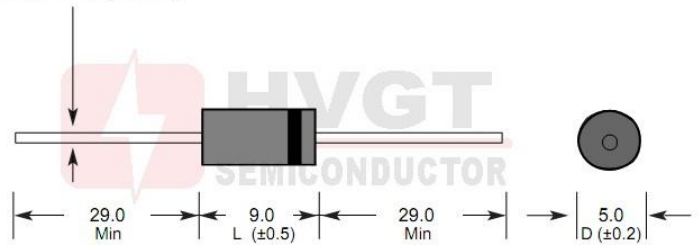
1. Case: epoxy resin molding.
2. Terminal: welding axis.
3. Net weight: 2.10 grams (approx).

**SHAPE DISPLAY:**



**SIZE: (Unit:mm)** **HVGT NAME: DO-590**

**DO-590 Series**  
Lead Diameter 1.28 (±0.02)



Unit:mm

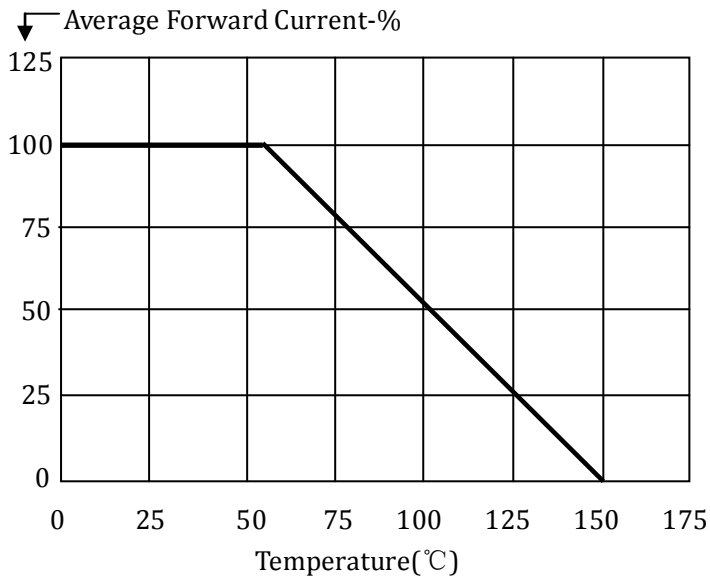
**MAXIMUM RATINGS AND CHARACTERISTICS:** (Absolute Maximum Ratings)

Items	Symbols	Condition	Data Value	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	$T_A=25^{\circ}C$	6.0	kV
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	$T_A=25^{\circ}C$	--	kV
Average Forward Current Maximum	$I_{FAVM}$	$T_A=55^{\circ}C$	500	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	20	A
Junction Temperature	$T_J$		150	$^{\circ}C$
Allowable Operation Case Temperature	$T_C$		-40~+150	$^{\circ}C$
Storage Temperature	$T_{STG}$		-55~+175	$^{\circ}C$

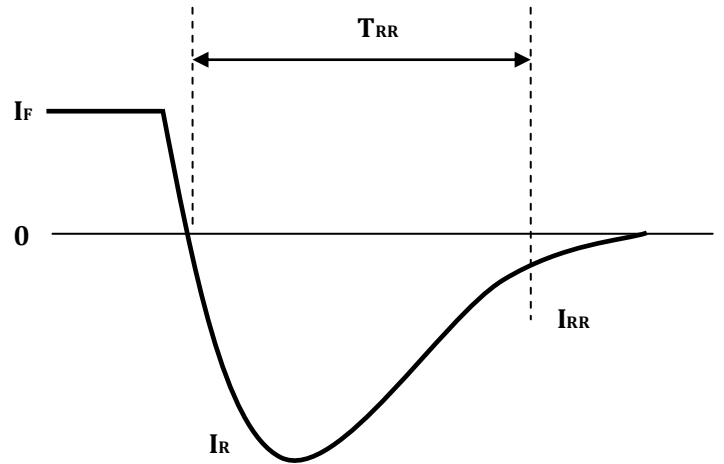
**ELECTRICAL CHARACTERISTICS:**  $T_A=25^{\circ}C$  (Unless Otherwise Specified)

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	$V_{FM}$	at $25^{\circ}C$ ; at 100mA	10.5	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}C$ ; at $V_{RRM}$	5.0	$\mu A$
	$I_{R2}$	at $100^{\circ}C$ ; at $V_{RRM}$	50	$\mu A$
Maximum Reverse Recovery Time	$T_{RR}$	at $25^{\circ}C$ ; $I_F=0.5I_R$ ; $I_R=I_{FAVM}$ ; $I_{RR}=0.25I_R$	--	nS
Junction Capacitance	$C_J$	at $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$	19	pF

**Forward Current Derating Curve**

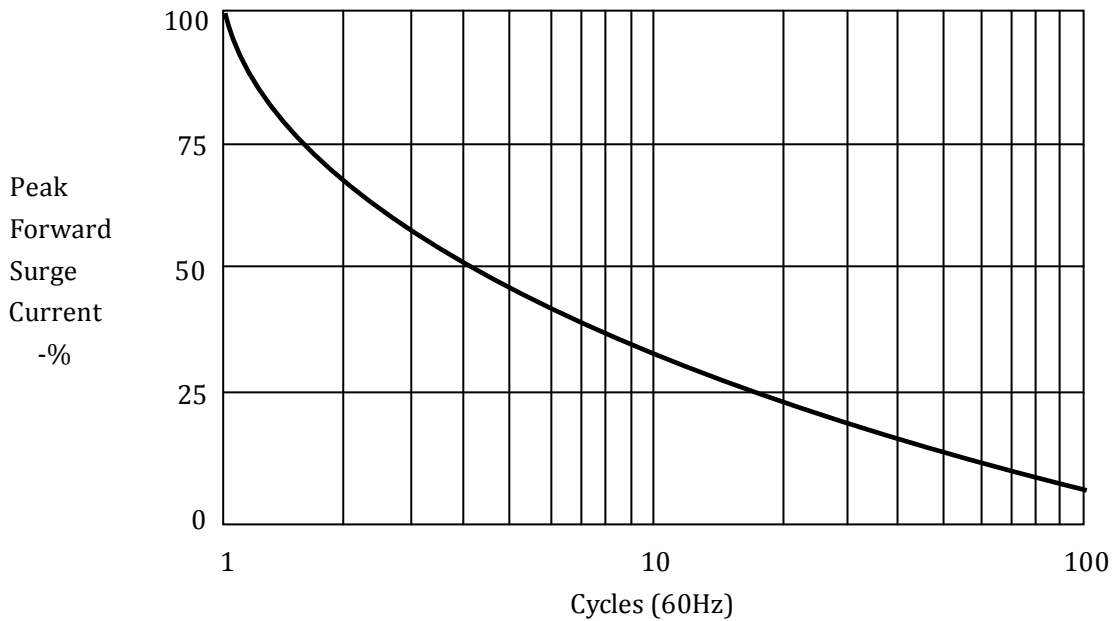


**Reverse Recovery Measurement Waveform**



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

**Non-Repetitive Surge Current**



Marking	Type	Code	Cathode Mark
	BR6F	BR6F HVGT	