

**INTRODUCE:**

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

**FEATURES:**

1. Super small.
2. Middle current.
3. High frequency, Ultra fast recovery.
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuumHave anticorrosion in the surface.

**APPLICATIONS:**

1. High voltage multiplier circuit
2. X-ray generator.
3. General purpose high voltage rectifier.
4. Other.

**MECHANICAL DATA:**

1. Case: epoxy resin molding.
2. Terminal: welding axis.
3. Net weight: 2.1 grams (approx).

**SHAPE DISPLAY:**

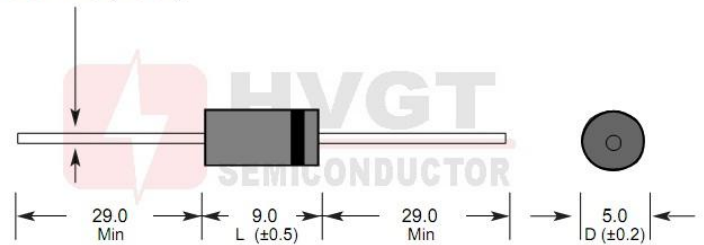


**SIZE: (Unit:mm)**

**HVGT NAME: DO-590**

**DO-590 Series**

Lead Diameter 1.28 (±0.02)



Unit:mm

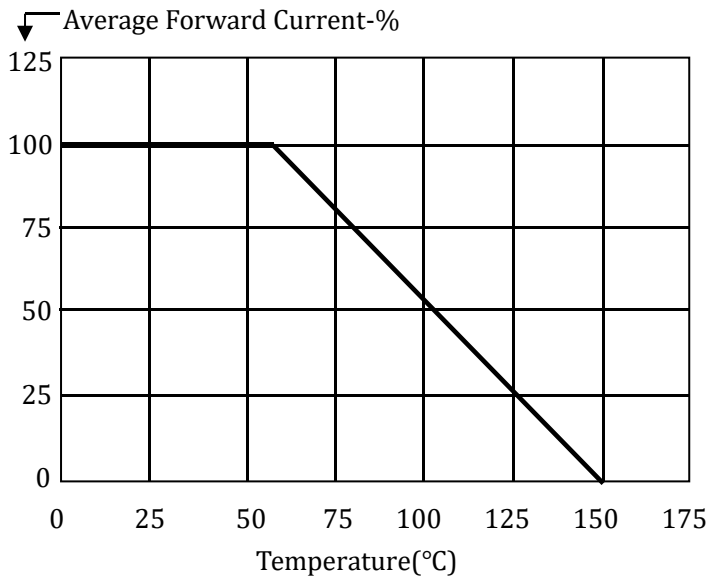
**MAXIMUM RATINGS AND CHARACTERISTICS:** (Absolute Maximum Ratings)

Items	Symbols	Condition	Data Value	Units
Repetitive Peak Rense Voltage	$V_{RRM}$	$T_A=25^{\circ}C$	3.0	kV
Non-Repetitive Peak Rense Voltage	$V_{RSM}$	$T_A=25^{\circ}C$	3.6	kV
Average Forward Current Maximum	$I_{FAVM}$	$T_A=55^{\circ}C$	1000	mA
		$T_{OIL}=55^{\circ}C$	1500	mA
Non-Repetitive Forward Surge Current	$I_{FSM}$	$T_A=25^{\circ}C$ ; 60Hz Half-Sine Wave; 8.3mS	40	A
Junction Temperature	$T_J$		150	$^{\circ}C$
Allowable Operation Case Temperature	$T_C$		-40~+150	$^{\circ}C$
Storage Temperature	$T_{STG}$		-40~+150	$^{\circ}C$

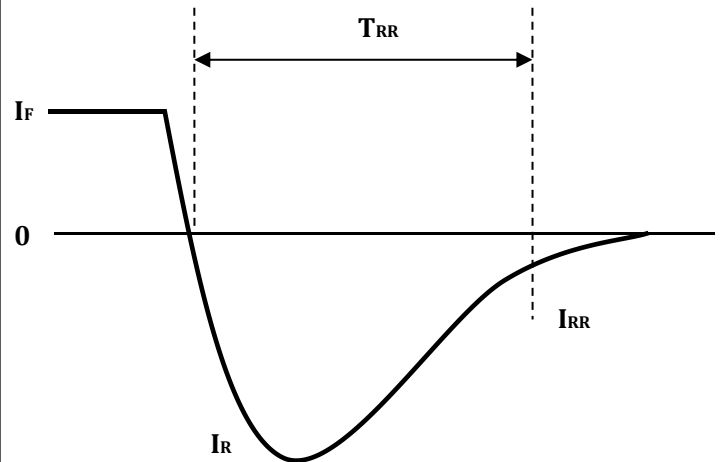
**ELECTRICAL CHARACTERISTICS:**  $T_A=25^{\circ}C$  (Unless Otherwise Specified)

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	$V_{FM}$	at $25^{\circ}C$ ; at $I_{FAVM}$	4.5	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}C$ ; at $V_{RRM}$	0.5	$\mu A$
	$I_{R2}$	at $125^{\circ}C$ ; at $V_{RRM}$	50	$\mu A$
Maximum Reverse Recovery Time	$T_{RR}$	at $25^{\circ}C$ ; $I_F=0.5I_R$ ; $I_R=I_{FAVM}$ ; $I_{RR}=0.25I_R$	40	nS
Junction Capacitance	$C_J$	at $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$	20	pF

**Forward Current Derating Curve**

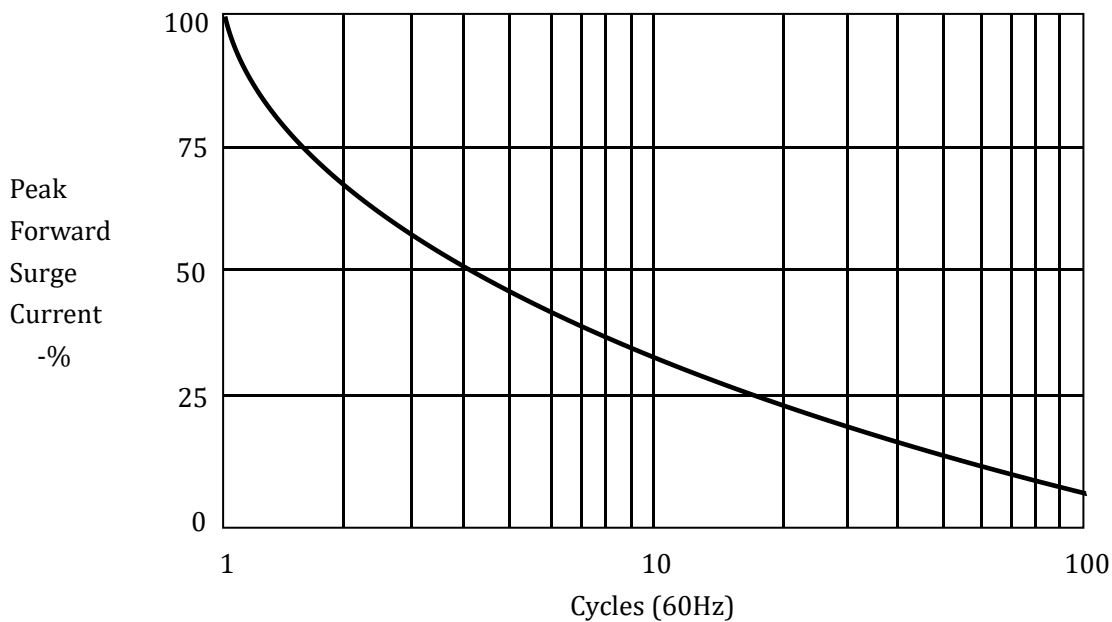


**Reverse Recovery Measurement Waveform**



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
	UX-FBR3	UFBR3 HVGT	