AF03-20F

30mA 20kV 100nS

High Voltage Silicon Rectifier Diode

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.

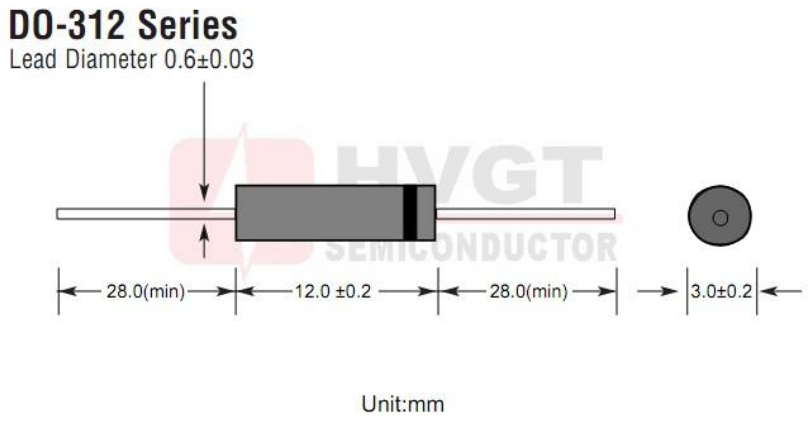
MECHANICAL DATA:

1. Case: epoxy resin molding.
2. Terminal: welding axis.
3. Net weight: 0.34 grams (approx).

SHAPE DISPLAY:



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



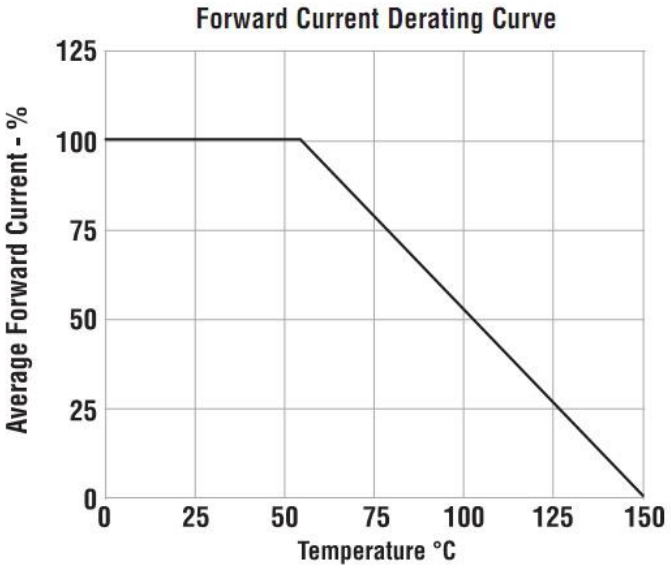
MAXIMUM RATINGS AND CHARACTERISTICS: (Absolute Maximum Ratings)

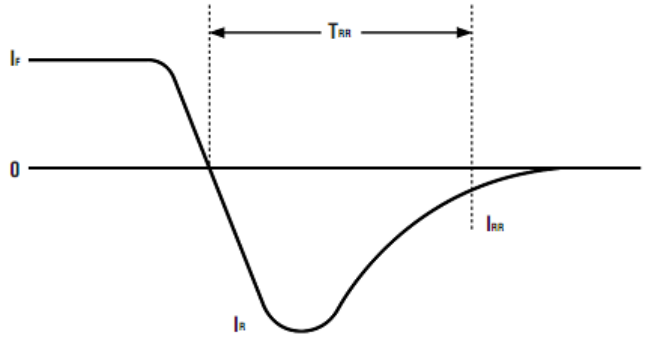
Items	Symbols	Condition	Data Value	Units
Repetitive Peak Renerse Voltage	V_{RRM}	T_A=25°C	20	kV
Non-Repetitive Peak Renerse Voltage	V_{RSM}	T_A=25°C	--	kV
Average Forward Current Maximum	I_{FAVM}	T_A=55°C	30	mA
		T_{OIL}=55°C	--	mA
Non-Repetitive Forward Surge Current	I_{FSM}	T_A=25°C; 50Hz Half-Sine Wave; 8.3mS	3.0	A
Junction Temperature	T_J		150	°C
Allowable Operation Case Temperature	Tc		-40~+150	°C
Storage Temperature	T_{STG}		-40~+150	°C

ELECTRICAL CHARACTERISTICS: T_A=25°C (Unless Otherwise Specified)

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	V_{FM}	at 25°C; at I_{FAVM}	35	V
Maximum Reverse Current	I_{R1}	at 25°C; at V_{RRM}	2.0	uA
	I_{R2}	at 100°C; at V_{RRM}	10	uA
Maximum Reverse Recovery Time	T_{RR}	at 25°C; I_F=0.5I_R; I_R=I_{FAVM}; I_{RR}=0.25I_R	100	nS
Junction Capacitance	C_J	at 25°C; V_R=0V; f=1MHz	1.0	pF

Fig 1	Fig 2
Forward Current Derating Curve	**Reverse Recovery Measurement Waveform**



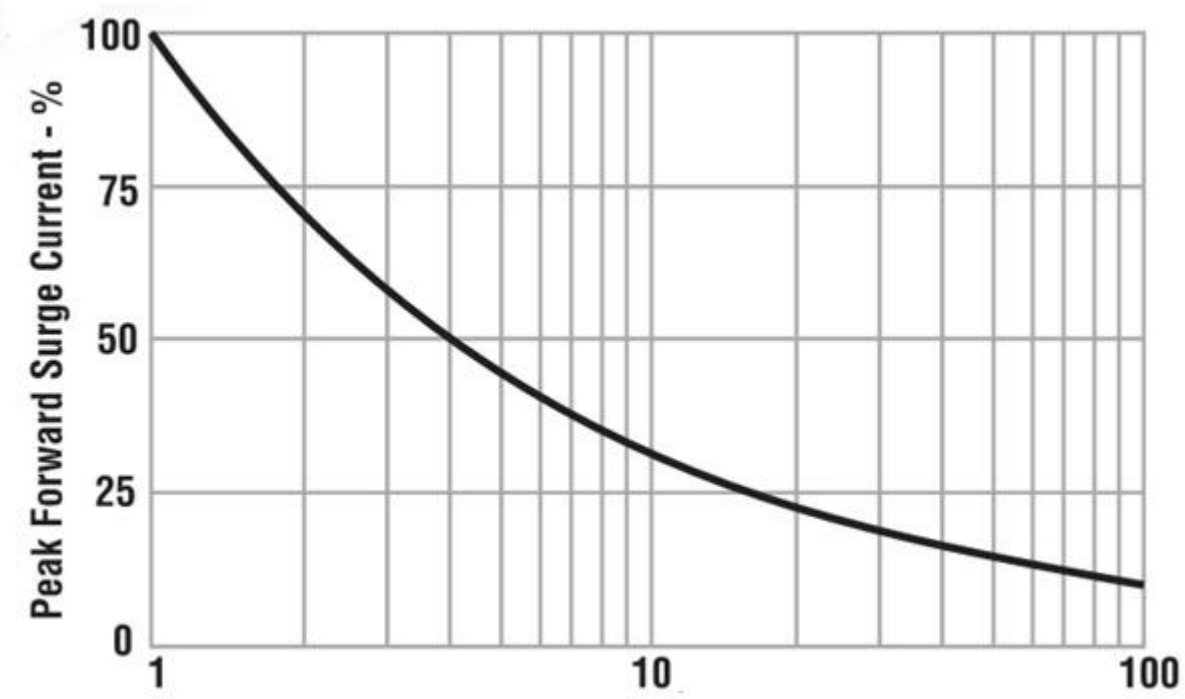


Typical data capture points: I_F =0.5I_R , I_R,I_{RR} =0.25I_R

I_R is typically the rated average forward current maximum (I_{FAVM}) of the D.U.T

Fig 3

Non-Repetitive Surge Current



Marking	Type	Code	Cathode Mark
	AF03-20F		