Fast Recovery High Voltage Rectifier Diode

G20FP G25FP G30FP

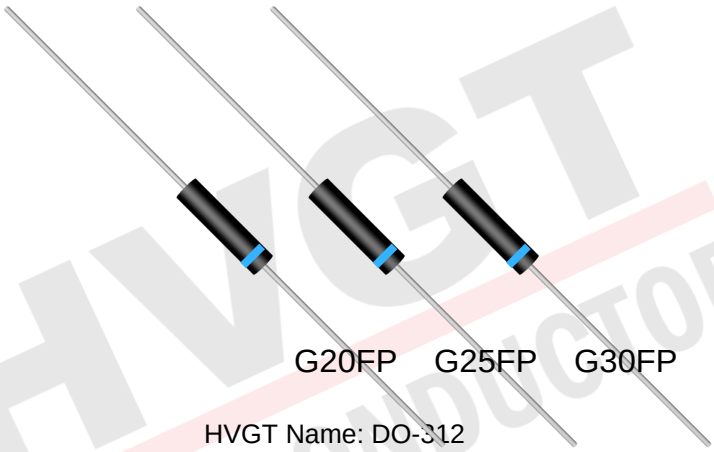
10mA 100nS Series: 20kV 25kV 30kV

INTRODUCE:

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

REFERENCE SHAPE:

RoHS COMPLIANT



G20FP G25FP G30FP

HVGT Name: DO-312

FEATURES:

1. Ultra fast recovery.
2. High reliability design.
3. Low current, High voltage.
4. Ultra small direct insertion installation.
5. Epoxy resin molded in vacuum.
6. Have anticorrosion in the surface.
7. UL94 V-0 Rated Material.

APPLICATIONS:

1. Air cleaner.
2. General purpose high voltage rectifier.
3. X-ray voltage doubling circuit.
4. Negative ion high-voltage generator.

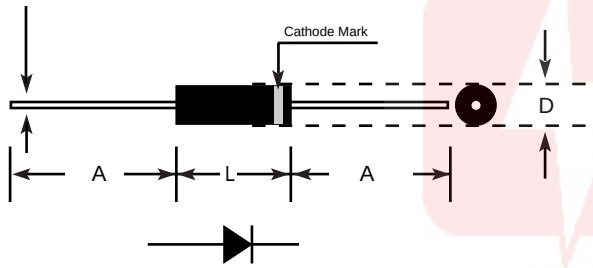
MECHANICAL DATA:

1. Case: epoxy resin molding.
2. Lead: Axis Line.
3. Net weight: 0.34 grams (approx).

DRAWINGS: (Unit:mm)

DO-312 Series

Lead Diameter 0.6±0.03



Dim.	Millimeters			Inches		
	Value	Min.	Max.	Value	Min.	Max.
D	3.0	2.8	3.2	0.118	0.110	0.126
L	12.0	11.8	12.2	0.472	0.464	0.480
A	25.4	25.4		1.0	1.0	

Maximum Ratings And Characteristics: (25°C ambient temperature unless stated otherwise.)

HVGT Part Number	V_{RRM} kV	V_{RSM} kV	I_{FAVM} mA	V_F V	I_{R1} uA	I_{R2} uA	I_{FSM} A	T_{RR} nS	V_Z kV	C_J pF
G20FP	20	24	10	45	0.2	10	3.0	100	24	1.0
G25FP	25	30	10	55	0.2	10	3.0	100	30	1.0
G30FP	30	36	10	65	0.2	10	3.0	100	36	1.0

Temperature:

Storage Temperature -55 to 150°C
Operating Temperature -40 to 125 °C
Maximum Junction Temperature 125 °C

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Specification Definitions:

Symbols	Items	Condition
V_{RRM}	Maximum Repetitive Reverse Voltage	At T_A = 25°C
V_{RSM}	Non-Repetitive Peak Renerse Voltage	At T_A = 25°C
I_{FAVM}	Average Forward Current Maximum	At T_A = 55°C
V_{FM}	Maximum Forward Voltage Drop	At 10mA
I_{R1}	Maximum Leakage Current	At V_{RRM} T_A = 25°C
I_{R2}	Maximum Leakage Current	At V_{RRM} T_A = 100°C
I_{FSM}	Maximum Surge Current	At 8.3 mS, 1/2 Sine(60Hz),@ 25°C
T_{RR}	Maximum Reverse Recovery Time	I_F= 0.5 I_{FAVM} ; I_R = -I_{FAVM} ; I_{RR} = -0.25 I_{FAVM}
V_Z	Reverse Breakdown Voltage	At I_Z = 100uA
C_J	Junction Capacitance	At 25°C; V_R=0V; f=1MHz

FIGURE 01 **Reverse Recovery Measurement Waveform**

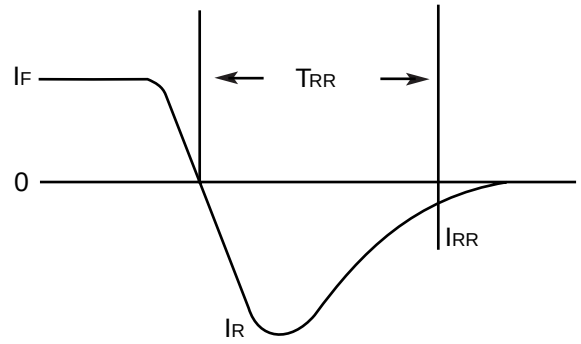


FIGURE 02 **Forward Current Derating Curve**

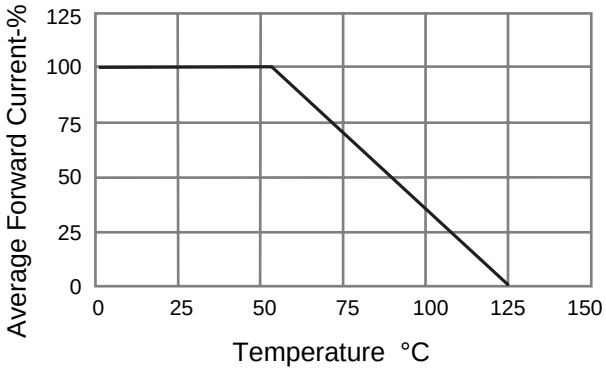
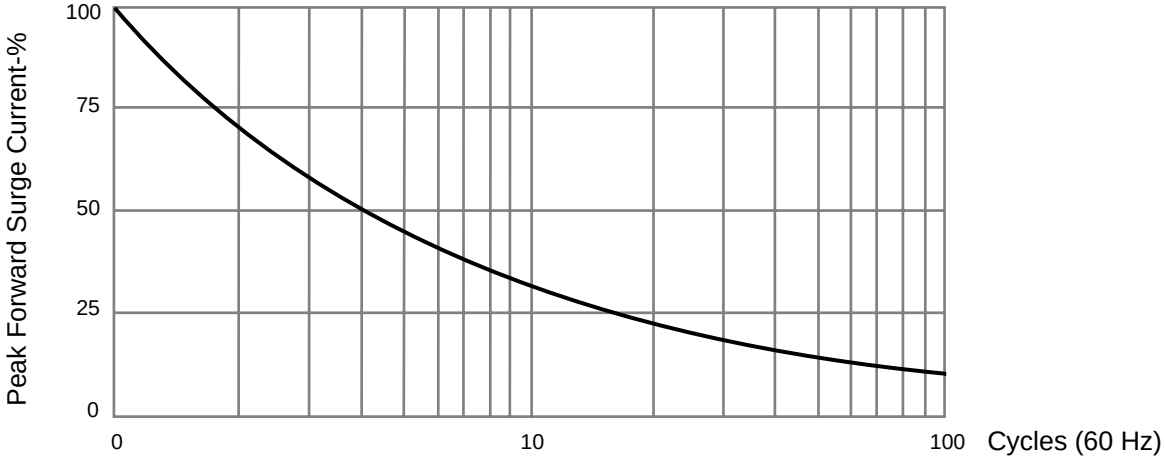


FIGURE 03 **Repetitive Surge Current Derating Curve**



This curve represents the percentage of published maximum surge rating as a function of surge repetition.

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