

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.

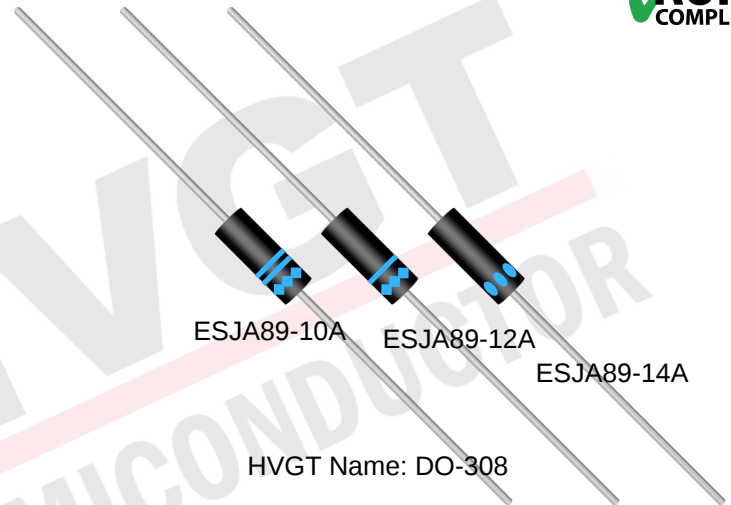
FEATURES:

1. High quality silicon chip construction.
2. Ultra fast recovery time.
3. High voltage and low current design
4. Epoxy resin molded in vacuum.
5. Have anticorrosion in the surface.
6. UL94 V-0 Rated Material.

APPLICATIONS:

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

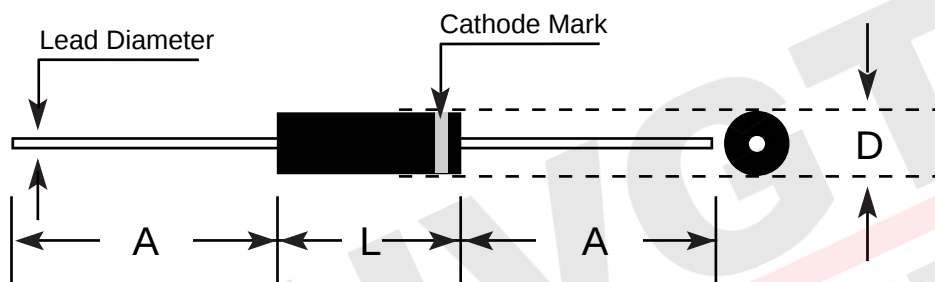
REFERENCE SHAPE:



MECHANICAL DATA:

1. Case: Epoxy resin molding.
2. Terminal: Axis soft lead.
3. Net weight: 0.28 gram (approx).

PACKAGE SIZE:



DO-308 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	8.0	7.8	8.2	0.315	0.307	0.323
A	25.4	25.4	--	1.0	1.0	--

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

HVGT Part	V _{RRM}	V _{RSM}	I _{FAVM}	V _{FM}	I _{R1}	I _{R2}	I _{FSM}	T _{RR}	C _J	HVGT Package
Number	kV	kV	mA	V	uA	uA	A	nS	pF	Dimensions
ESJA89-10A	10	12.0	5.0	35	2.0	5.0	0.5	60	1.0	DO-308
ESJA89-12A	12	14.4	5.0	40	2.0	5.0	0.5	60	1.0	DO-308
ESJA89-14A	14	16.8	5.0	45	2.0	5.0	0.5	60	1.0	DO-308

TEMPERATURE:

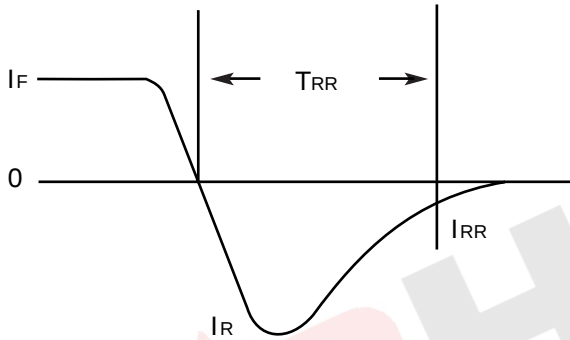
- Maximum Junction Temperature: 125 ° C
- Operating Temperature: -40 to 125° C
- Storage Temperature: -40 to 150 ° C

Specification Definitions:

Symbols	Items	Condition
V _{RRM}	Maximum Repetitive Reverse Voltage	--
V _{RSM}	Non-Repetitive peak reverse voltage	--
I _{FAVM}	Maximum Average Forward Current	At T _A =25° C
V _{FM}	Maximum Forward Voltage Drop	At I _{FAVM}
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, Single Half Sine, 60Hz
T _{RR}	Maximum Reverse Recovery Time	I _F =2.0mA; I _R = 4.0mA; I _{RR} = 1.0mA
C _J	Typical Junction Capacitance	At V _R = 0VDC, f = 1MHz



FIGURE 01 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

FIGURE 02 Forward Current Derating Curve

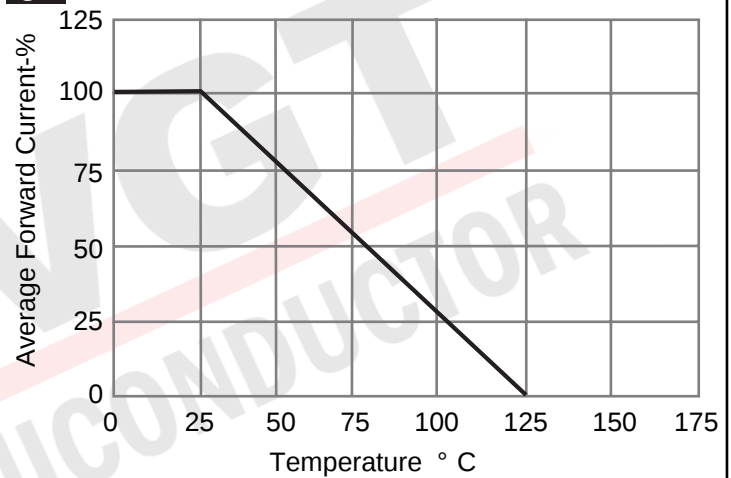


FIGURE 03 Typical T_{RR} Setup for Higher Current Diodes

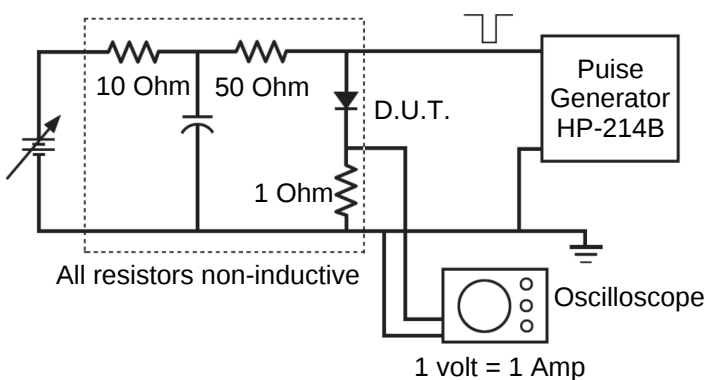


FIGURE 04 Typical T_{RR} Setup for Lower Current Diodes

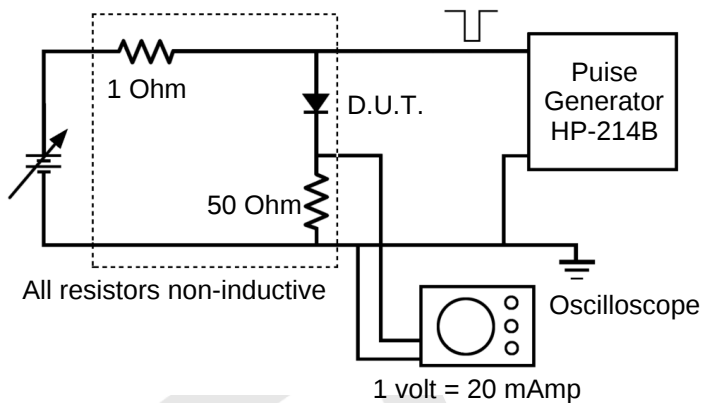
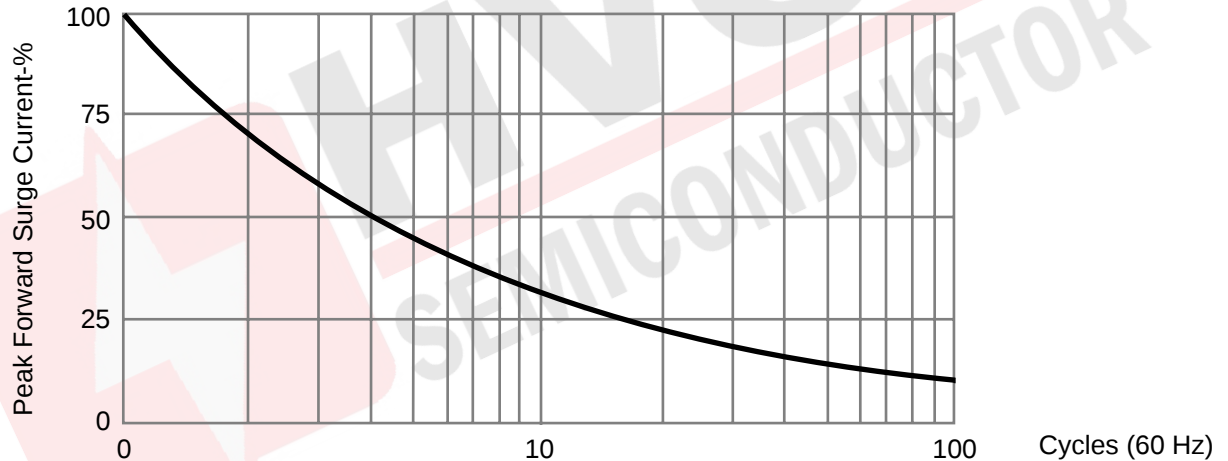


FIGURE 05 Repetitive Surge Current Derating Curve



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

Note: Order part number representation:

"TR" stands for Tape Roll Packaging, No "TR" indicates bulk film bag packaging.