ESJW15

High Voltage High Current Diodes

1.0A, 15kV, 150nS

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. Small size.
2. High current capability.
3. High speed switch.
4. High reliability.
5. Epoxy resin molded in vacuum.
6. Have anticorrosion in the surface.
7. UL94 V-0 Rated Material.

APPLICATIONS:

1. High frequency microwave electronic high voltage power rectifier.
2. X-ray high-voltage power supply.
3. Other high voltage rectifier circuits.

MECHANICAL DATA:

1. Case: Epoxy resin molding.
2. Terminal:Axis soft lead.
3. Net weight: 2.60 gram (approx).

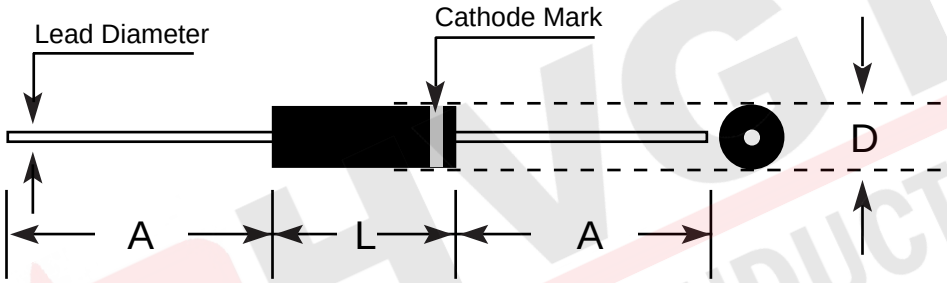
REFERENCE SHAPE:

RoHS COMPLIANT

HVGT Name: DO-722

Primary Characteristics		
$I_{F(AV)}$	1.0	A
V_{RRM}	15	kV
I_{FSM}	50	A
I_{RM}	2.0	uA
V_{FM}	16	V
T_{RR}	150	nS
T_J (max.)	150	° C

PACKAGE SIZE:



DO-722 Series						
Lead Diameter 1.20± 0.03						
Dim.	Millimeters			Inches		
	Value	Min.	Max.	Value	Min.	Max.
D	7.5	7.3	7.7	0.295	0.287	0.303
L	22.0	21.8	22.2	0.866	0.858	0.874
A	22.0	22.0	--	0.866	0.866	--

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HVGT SEMICONDUCTOR

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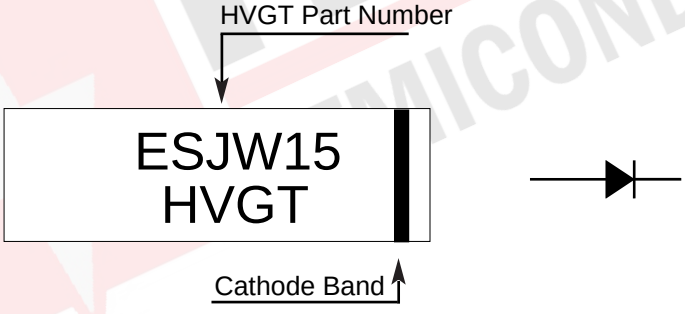
MAXIMUM RATINGS AND CHARACTERISTICS: (Ta=25° C, Ambient temperature unless stated otherwise.)

Items	Symbols	Condition	Data Value	Units
Maximum Repetitive Reverse Voltage	V_{RRM}	--	15	kV
Non-Repetitive Peak Reverse Voltage	V_{RSM}	--	18	kV
Maximum Average Forward Current	I_{FAVM}	T_A = 50° C	1.0	A
		T_{OIL}= 55° C	1.6	A
Non-Repetitive Forward Surge Current	I_{FSM}	60Hz Half-Sine Wave; 8.3mS	50	A
Maximum Junction Temperature	T_J		150	° C
Allowable Operation Case Temperature	T_C		-40~150	° C
Storage Temperature	T_{STG}		-55~175	° C

ELECTRICAL CHARACTERISTICS: (Ta=25° C, Ambient temperature unless stated otherwise.)

Items	Symbols	Condition	Data Value	Units
Maximum Forward Voltage Drop	V_{FM}	At I_{FAVM}	16	V
Maximum Reverse Current	I_{R1}	At V_{RRM} , T_A=25° C	2.0	uA
	I_{R2}	At V_{RRM} , T_A=100° C	20	uA
Maximum Reverse Recovery Time	T_{RR}	I_F=0.5I_R; I_R=I_{FAVM}; I_{RR}=0.25I_R	150	nS
Junction Capacitance	C_J	At V_R=0V; f=1MHz	8.5	pF

MARKING:



Note: Specifications subject to change without notice. Photo is representation only.
Standard package quantity:500PCS/in Box.

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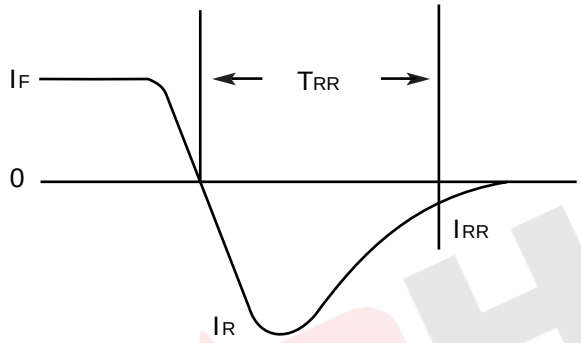
FIGURE 01 Reverse Recovery Measurement Waveform



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

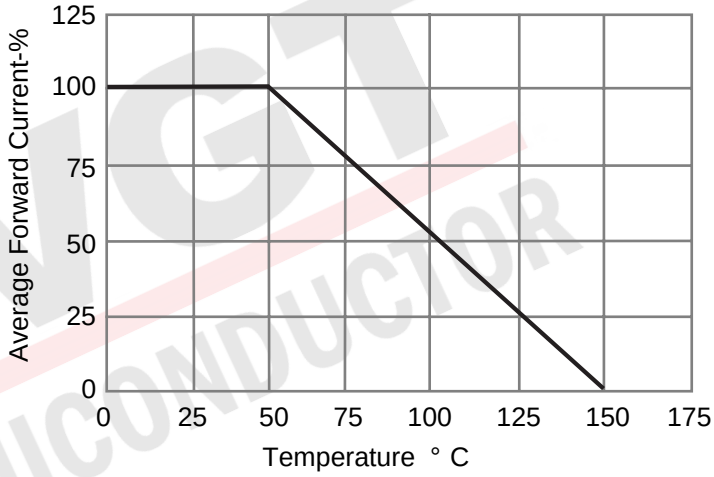


FIGURE 03 Forward Characteristics

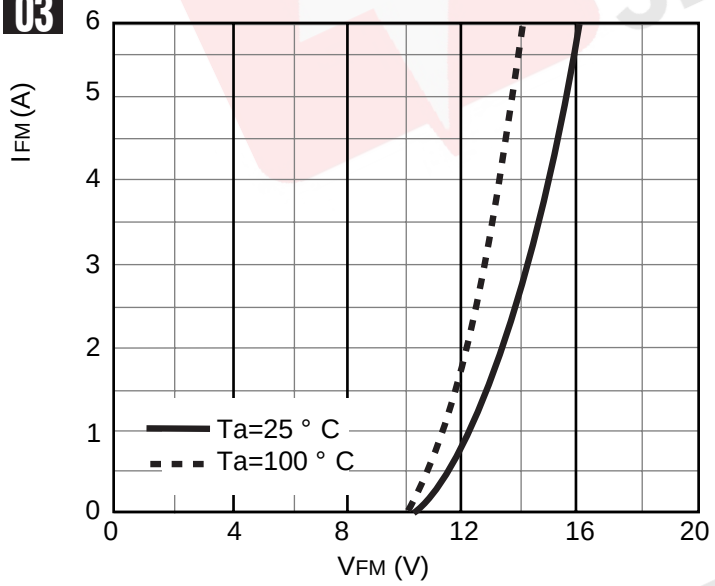


FIGURE 04 Reverse Characteristics

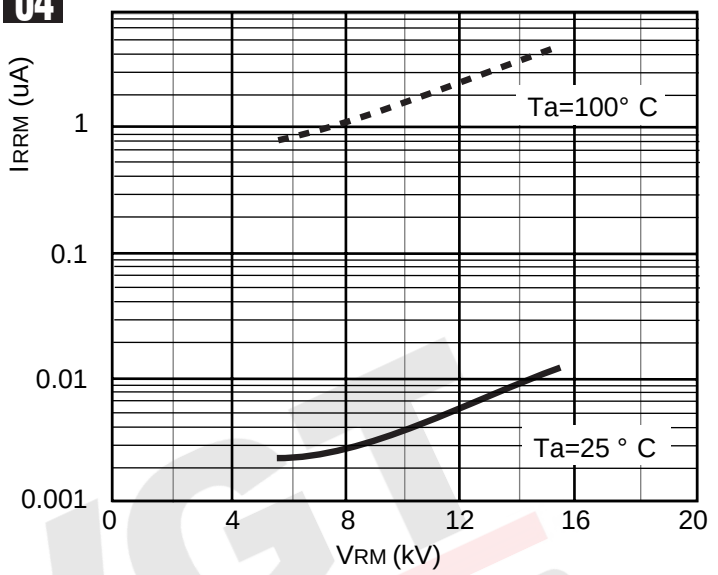
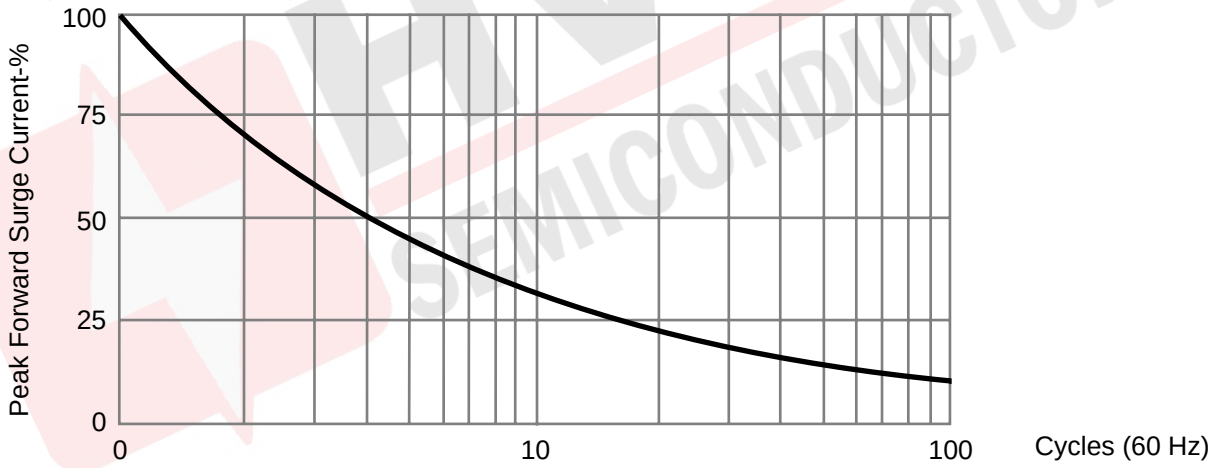


FIGURE 05 Repetitive Surge Current Derating Curve



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

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