HVQS2520G

High Voltage Rectifier Bridge

25mA 20kV 100nS

FEATURES:

1. High quality silicon chip structure.
2. Fast recovery time.
3. Low current and high voltage design.
4. High surge current capability.
5. Epoxy resin molded in vacuum.
6. Have anticorrosion in the surface.
7. UL94 V-0 Rated material.

MECHANICAL DATA:

1. Case: Epoxy resin molding.
2. Terminal: Copper soft lead with a diameter of 1.0mm.
3. Polarity : Polarity symbols marked on case.
4. Mounting position : Any
5. Net weight: 4.6 gram (approx).

APPLICATIONS:

1. AC to DC conversion.
2. Other high voltage rectifier circuits.

PRIMARY CHARACTERISTICS:

Per Leg Simple Data:

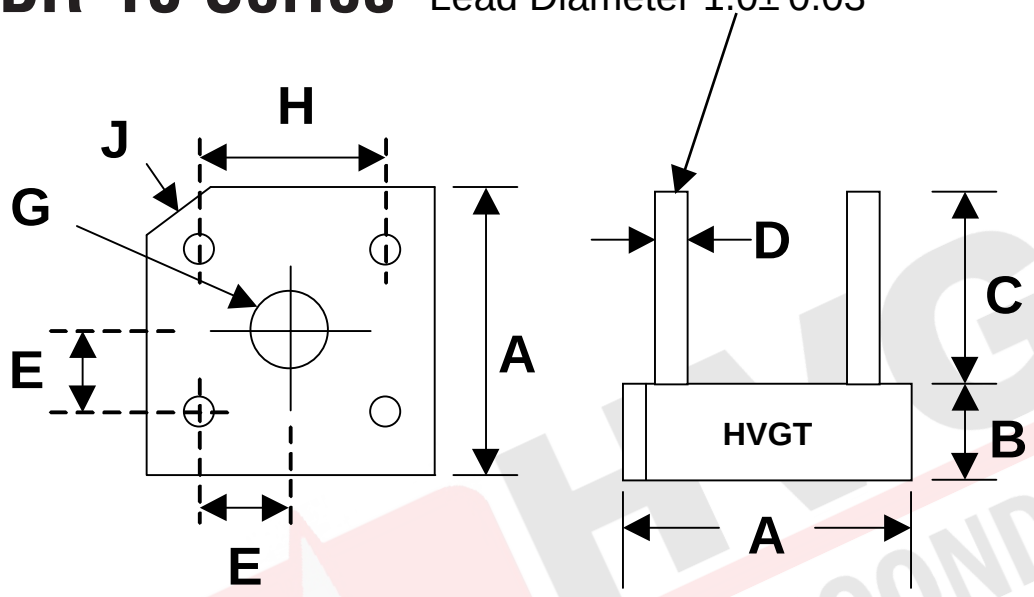
$I_{F(AV)}$	25	mA
V_{RRM}	20	kV
I_{FSM}	1.0	A
I_{RM}	2.0	uA
V_{FM}	35	V
T_{RR}	100	nS
T_J (max.)	125	° C

RoHS COMPLIANT

APPEARANCE AND SIZE: (Unit: mm)

BR-10 Series

Lead Diameter 1.0± 0.03



BR-10		
Dim	Min	Max
A	18.54	19.56
B	6.35	7.60
C	19.00	—
D	1.0 Ø Typical	
E	6.80	7.50
G	Hole for #6 screw	
	3.60	4.00
H	14.50	15.50
J	2.38 x 45°C Typical	
HVGT		

MARKING:

HVGT Part Number	Mark Code	Polarity Symbol
HVQS2520G	HVQS2520G HVGT	+ - ~ ~

HVGT SEMICONDUCTOR

HVQS2520G

High Voltage Rectifier Bridge

25mA 20kV 100nS

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

Items	Symbols	Condition	Data Value	Units
Maximum Repetitive Reverse Voltage	V_{RRM}	--	20	kV
Non-Repetitive Peak Reverse Voltage	V_{RSM}	--	24	kV
Maximum Average Forward Current	I_{FAVM}	T_A = 40° C	25	mA
		T_{OIL}= 55° C	30	mA
Non-Repetitive Forward Surge Current	I_{FSM}	60Hz Half-Sine Wave; 8.3mS	1.0	A
Maximum Junction Temperature	T_J		125	° C
Allowable Operation Case Temperature	T_C		-40~125	° C
Storage Temperature	T_{STG}		-40~150	° 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}	35	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	50	uA
Maximum Reverse Recovery Time	T_{RR}	I_F=0.5I_R; I_R=I_{FAVM}; I_{RR}=0.25I_R	100	nS
Typical Junction Capacitance	C_J	At V_R = 0VDC, f = 1MHz	0.9	pF

MARKING:

HVGT Part Number	I_{FAVM}	Device Structure	V_{RRM}	Frequency
HVQS	**25**		**20**	**G**
Low Current High Voltage Bridge Rectifier Series	25mA	(MB)=Single-phase (MT)=Three-phase	20kV	(D)= Low Frequency (G)= High Frequency (U)= Ultra High Frequency

Note: Specifications subject to change without notice. Photo is representation only.
The electrical data on this page is the data for each leg of the part number.

GETE ELECTRONIC CO.,LTD Http://www.getedz.com Http://www.hvgtsemi.com E-mai: sales@getedz.com
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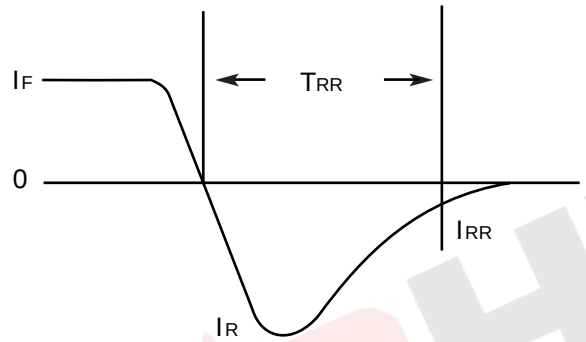
FIGURE 01 Reverse Recovery Measurement Waveform



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

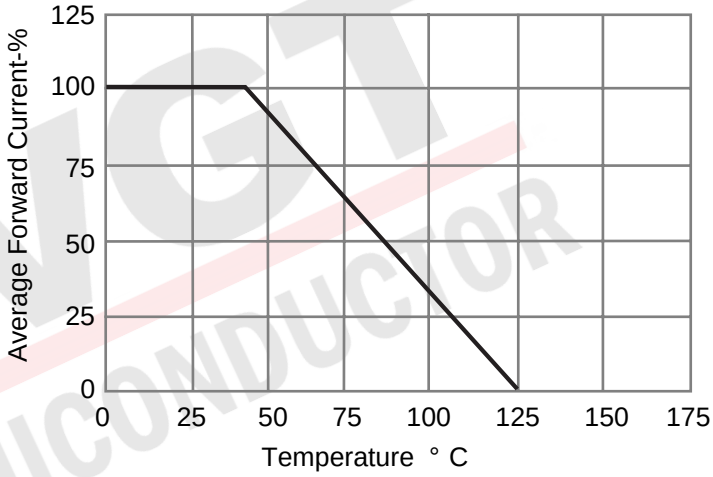


FIGURE 03 Forward Characteristics

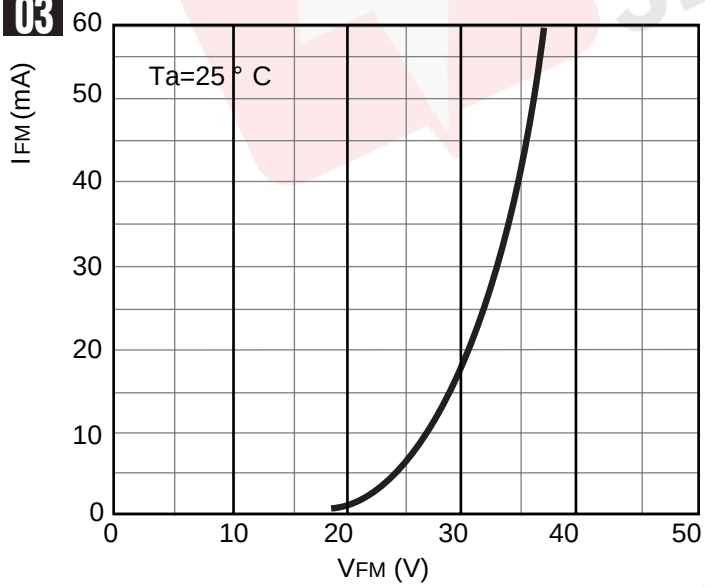


FIGURE 04 Reverse Characteristics

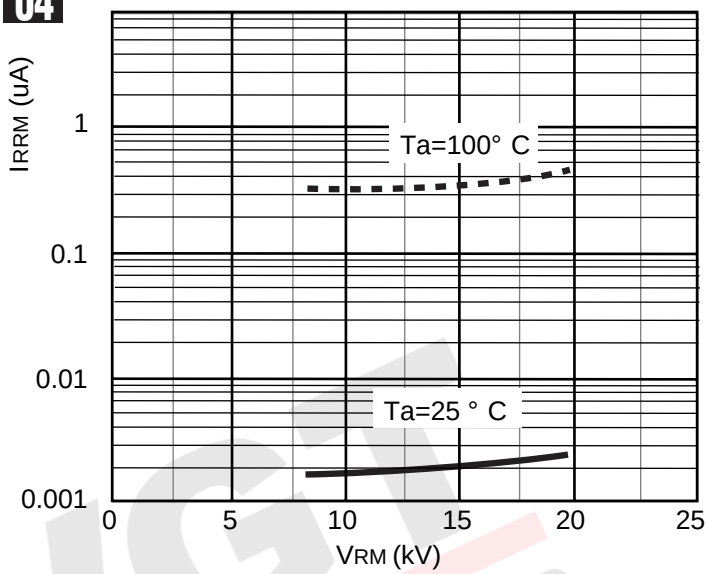
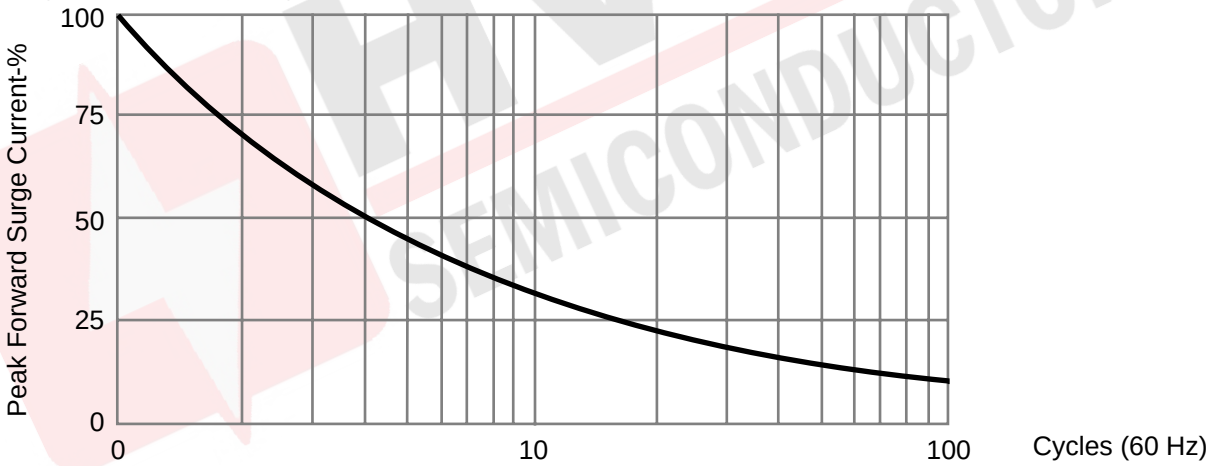


FIGURE 05 Repetitive Surge Current Derating Curve



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

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