HVQL30MB150G

Fast Recover High Voltage Bridge Rectifiers

3.0A 15kV 100nS

FEATURES:

1. High quality silicon GPP chip structure.
2. Fast recovery time.
3. High 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.

APPLICATIONS:

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

MECHANICAL DATA:

1. Case: Epoxy resin molding.
2. Terminal:Copper M3 # nut.
3. Polarity : Polarity symbols marked on case.
4. Mounting position : Any
5. Net weight: 410 gram (approx).

MARKING:

HVQL20MB151G ← HVGT Part Number

3526 HVGT Semi ← HVGT Logo

Week / Year

+ - ~ ~ ← Polarity Symbol

SHAPE REFERENCE IMAGE:

RoHS COMPLIANT

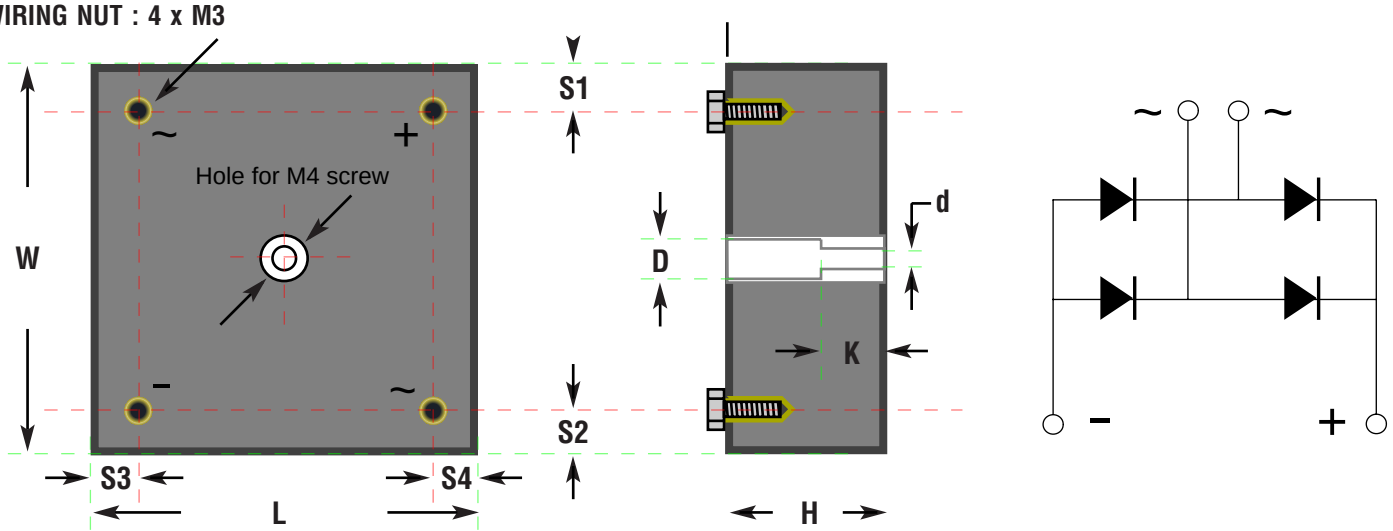
PRIMARY CHARACTERISTICS:

Per Leg Simple Data:		
$I_{F(AV)}$	3.0	A
V_{RRM}	15	kV
I_{FSM}	60	A
I_{RM}	2.0	uA
V_{FM}	18.0	V
T_{RR}	100	nS
T_J (max.)	150	° C

CASE OUTLINE AND DIMENSIONS :

HVQ-1010E Series

WIRING NUT : 4 x M3



UNIT: / CODE:	W	L	H	S1 to S4	D	d	K
MM	100 ±2.54	100 ±2.54	25.0 ±2.54	10.0 ±1.27	7.78 ±0.51	4.31 ±0.25	6.35 ±1.27
INCHES	3.94 ±0.10	3.94 ±0.10	0.98 ±0.10	0.39 ±0.05	0.31 ±0.02	0.17 ±0.01	0.25 ±0.05

VERSION: Jun 2026

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_C = 55° C	3.0	A
		T_{OIL}= 55° C	4.5	A
Non-Repetitive Forward Surge Current	I_{FSM}	60Hz Half-Sine Wave; 8.3mS	90	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}	18.0	V
Maximum Reverse Current	I_{R1}	At V_{RRM}, T_A =25° C	1.0	uA
	I_{R2}	At V_{RRM}, T_{OIL}=100° C	20	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	--	pF

PART NUMBER NAMING RULES:

HVGT Part Number	I_{FAVM}	Device Structure	V_{RRM}	T_{RR}
HVQL	**30**	**MB**	**150**	**G**
High Voltage Bridge Rectifier Series	3.0A	(MB)=Single-phase (MT)=Three-phase	15kV	(D)= Standard Recovery Time (G)= 100nS (F)= 75nS (U)= 50nS (S)= 40nS

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.

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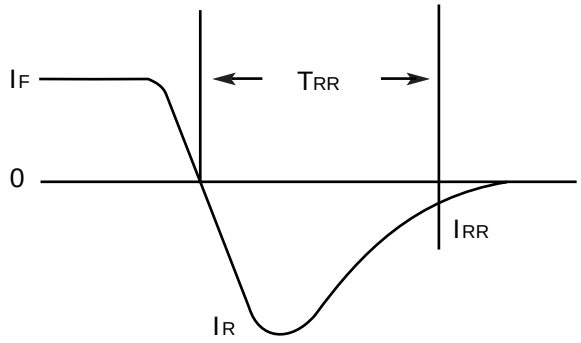
FIGURE 01 Reverse Recovery Measurement Waveform



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

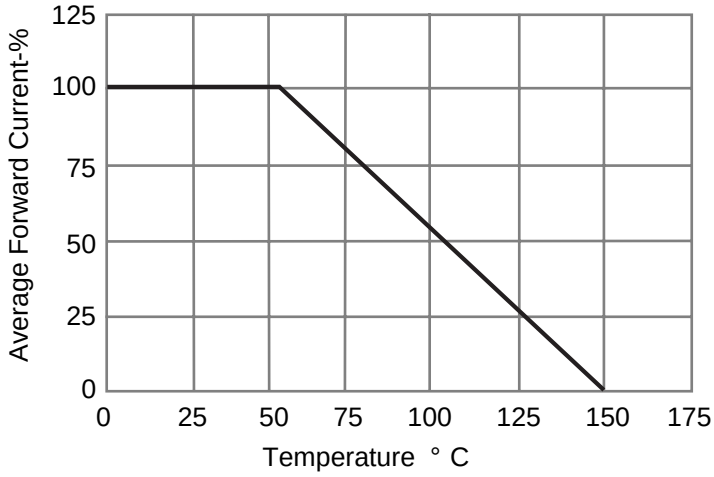


FIGURE 03 Forward Characteristics

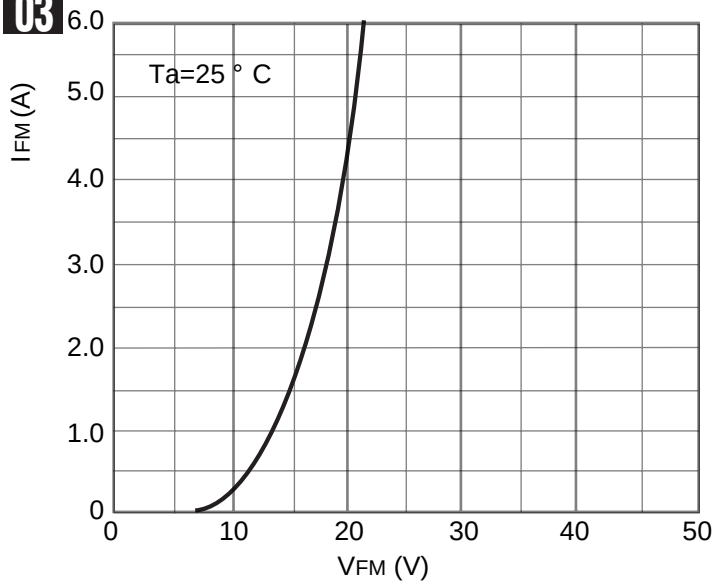


FIGURE 04 Reverse Characteristics

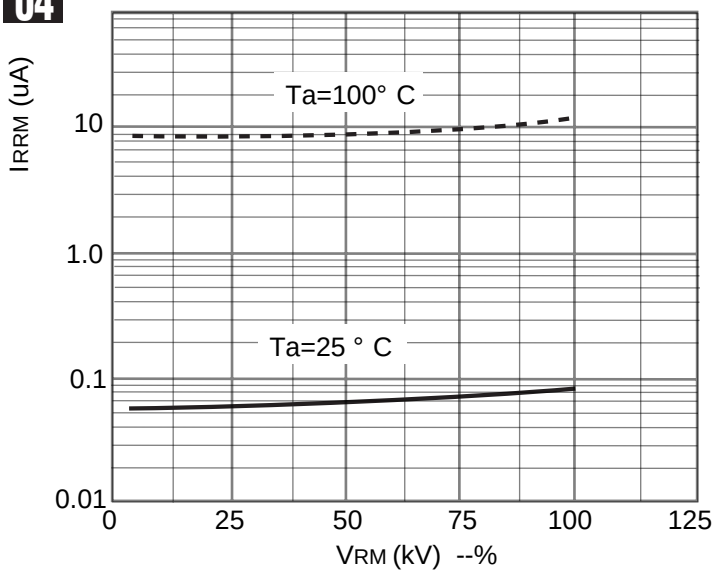
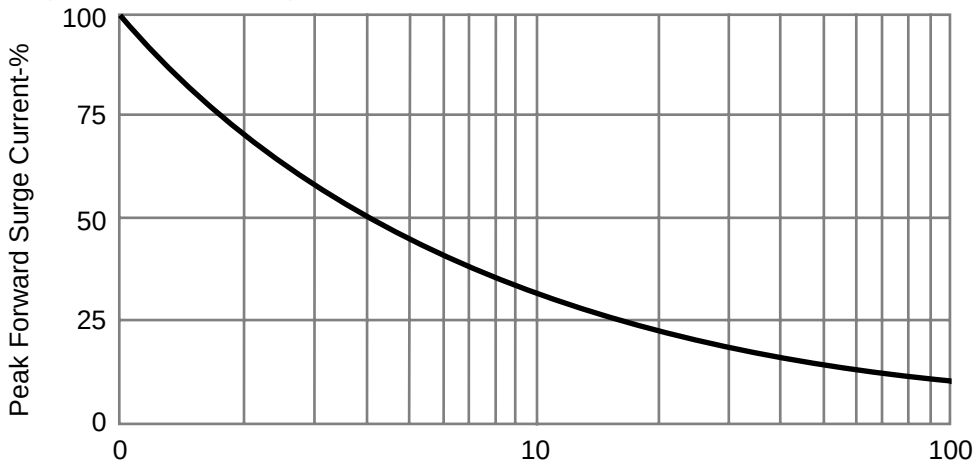


FIGURE 05 Repetitive Surge Current Derating Curve



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

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