

SCHOTTKY DIODE MODULE TYPE 2X160A / 200V

Features

- High Surge Capability
- Type 200V V_{RRM}
- Isolation Type Package
- Electrically Isolation Base Plate
- RoHS Compliant

Maximum Ratings

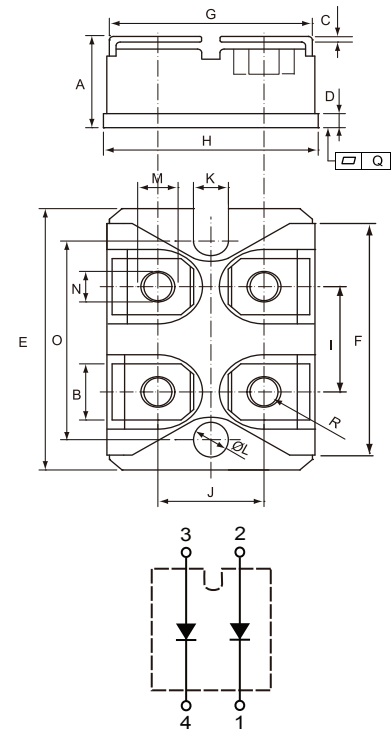
- Junction Operating Temperature : -40°C to $+150^{\circ}\text{C}$
- Storage Temperature : -40°C to $+150^{\circ}\text{C}$

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GSXD160A020S1-D3	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current (Per pkg) (Per diode)	$I_{F(AV)}$	320A 160A	$T_C = 110^{\circ}\text{C}$
Peak Forward Surge Current (Per diode)	I_{FSM}	2000A	8.3ms, half sine
Maximum Instantaneous Forward Voltage* (Per diode)	V_F	0.82V 0.92V	$I_{FM} = 160\text{A}; T_J = 125^{\circ}\text{C}$ $I_{FM} = 160\text{A}; T_J = 25^{\circ}\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blockig Voltage* (Per diode)	I_R	3mA 10mA 30mA	$T_J = 25^{\circ}\text{C}$ $T_J = 100^{\circ}\text{C}$ $T_J = 150^{\circ}\text{C}$
Non-Repetitive Avalanche Energy (Per diode)	E_{AS}	2454mJ	$T_J = 25^{\circ}\text{C}$, $I_{AS} = 60\text{A}$, $L = 1\text{mH}$
Isolation Voltage	V_{iso}	2500V	A.C. 1 minute
Maximum Thermal Resistance Junction To Case (Per diode)	$R_{\theta jc}$	0.30 $^{\circ}\text{C}/\text{W}$	
Mounting Torque		1.3Nm	M4 Screw

*Pulse Test: Pulse Width 300 μsec , Duty Cycle < 2%



	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.460	0.483	11.68	12.28
B	0.307	0.323	7.80	8.20
C	0.030	0.033	0.75	0.85
D	0.071	0.081	1.80	2.05
E	1.488	1.504	37.80	38.20
F	1.248	1.260	31.70	32.00
G	0.917	0.957	23.30	24.30
H	0.996	1.008	25.30	25.60
I	0.579	0.602	14.70	15.30
J	0.492	0.516	12.50	13.10
K	0.161	0.169	4.10	4.30
L	0.161	0.169	4.10	4.30
M	0.181	0.197	4.60	5.00
N	0.165	0.181	4.20	4.60
O	1.181	1.197	30.00	30.40
Q	-0.002	0.004	-0.05	0.10
R	M4*8			

Figure.1 - Typical Forward Characteristics

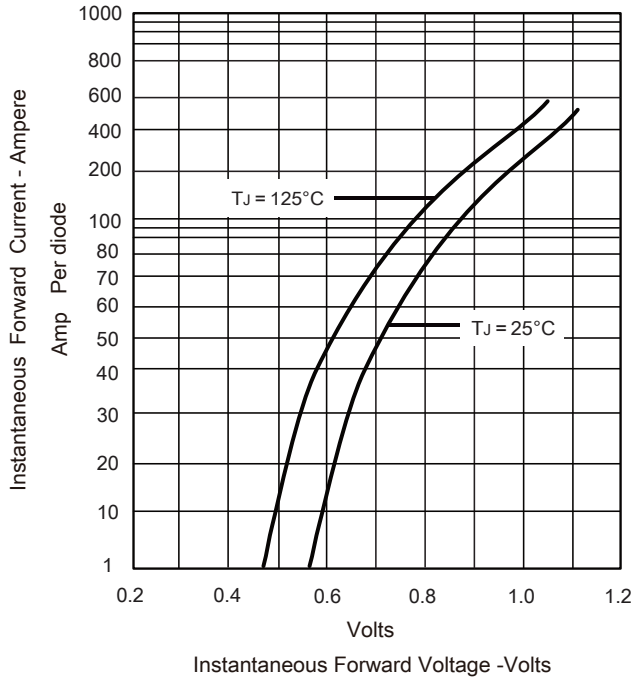


Figure.2 - Forward Derating Curve

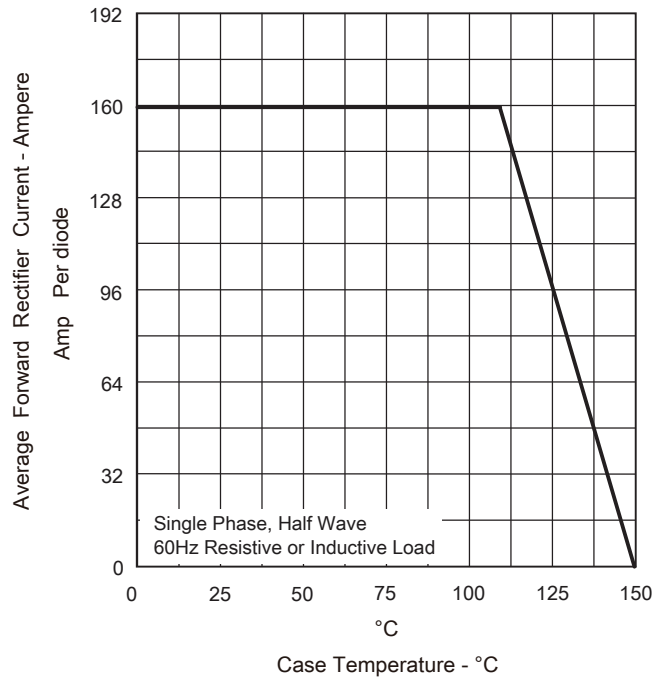


Figure.3 - Peak Forward Surge Current

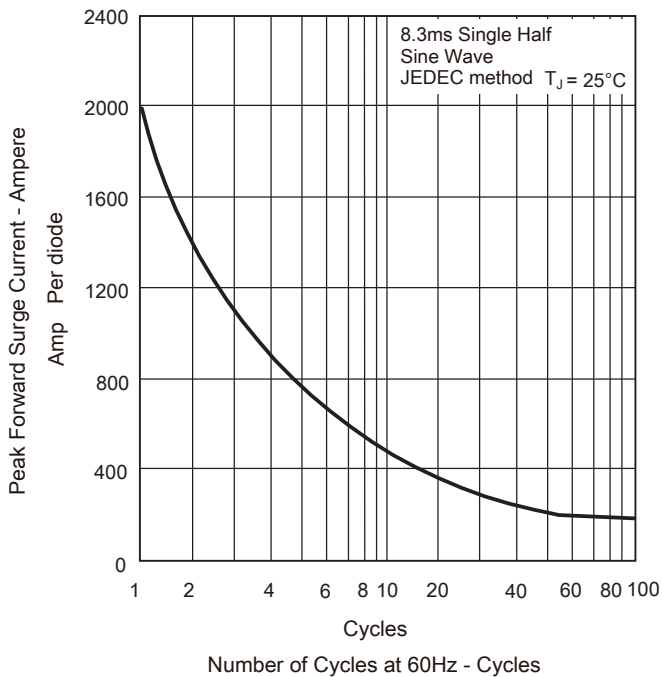
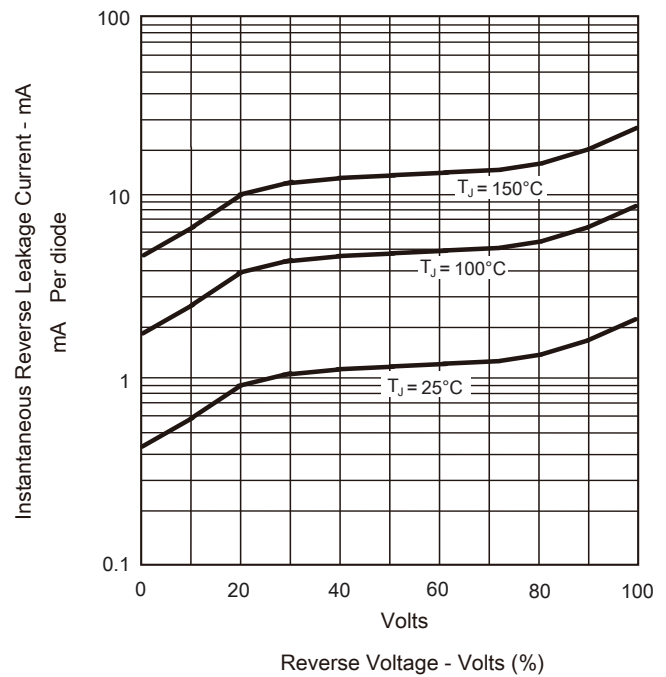


Figure.4 - Typical Reverse Characteristics



Revision History

Date	Revision	Notes
8/10/2014	1.0	Initial release
01/03/2020	1.1	Applied company name change
07/05/2022	1.2	Updated device parameters

Notes

RoHS Compliance

The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU Directive 2011/65/EC (RoHS2), as implemented March, 2013. RoHS Declarations for this product can be obtained from the Product Documentation sections of www.SemiQ.com.

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