

SUPER FAST DIODE MODULE TYPE 120A

Features

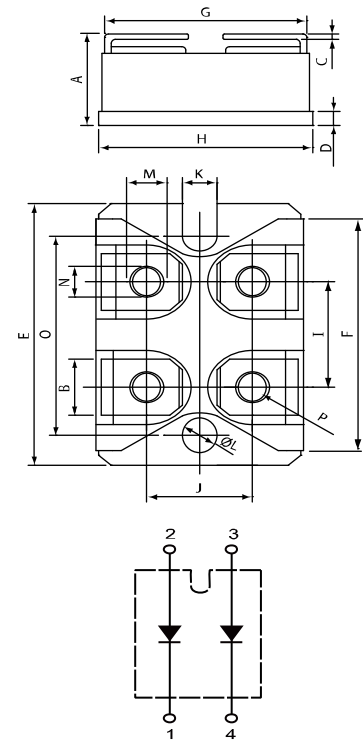
High Surge Capability
Type 400V V_{RRM}
Isolation Type Package
Electrically Isolation base plate



Maximum Ratings

Operating Temperature : -55 °C to +175 °C
Storage Temperature : -55 °C to +175 °C

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GSXF060A040S1-D3	400V	280V	400V



Electrical Characteristics @ 25 °C Unless Otherwise Specified.

Average Forward Current (Per pkg)	$I_{F(AV)}$	120 A	$T_c = 125\text{ }^\circ\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	900 A	8.3ms, half sine
Maximum Instantaneous Forward Voltage* (Per leg)	V_F	1.3 V	$I_{FM} = 60\text{ A}; T_J = 25\text{ }^\circ\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg)	I_R	25 μA 3 mA	$T_J = 25\text{ }^\circ\text{C}$ $T_J = 150\text{ }^\circ\text{C}$
Maximum Reverse Recovery Time (Per leg)	T_{rr}	75 ns	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}$ $I_{RR} = 0.25\text{ A}$
Isolation Voltage	V_{iso}	2500 V	A.C. 1 minute
Maximum Thermal Resistance Junction To Case (Per leg)	$R_{\theta jc}$	0.8 $^\circ\text{C/W}$	

* Pulse Test: Pulse Width 300 $\mu\text{ sec}$, Duty < 2%

DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MXA	MIN	MXA
A	.500	.519	12.70	13.20
B	.307	.322	7.80	8.20
C	.029	.033	.75	.84
D	.077	.082	1.95	2.10
E	1.487	1.502	37.80	38.20
F	1.250	1.258	31.75	32.00
G	.931	.956	23.65	24.30
H	.996	1.007	25.30	25.60
I	.586	.594	14.90	15.10
J	.492	.516	12.50	13.10
K	.161	.169	4.10	4.30
L	.161	.169	4.10	4.30
M	.181	.191	4.60	4.95
N	.165	.177	4.20	4.50
O	1.184	1.192	30.10	30.30
P	M4*8			

Figure .1- Typical Forward Characteristics

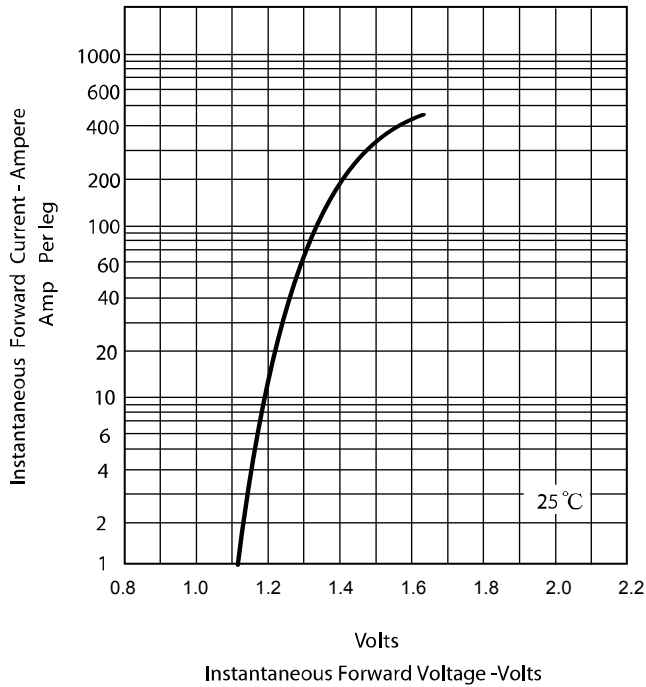


Figure.2 - Forward Derating Curve

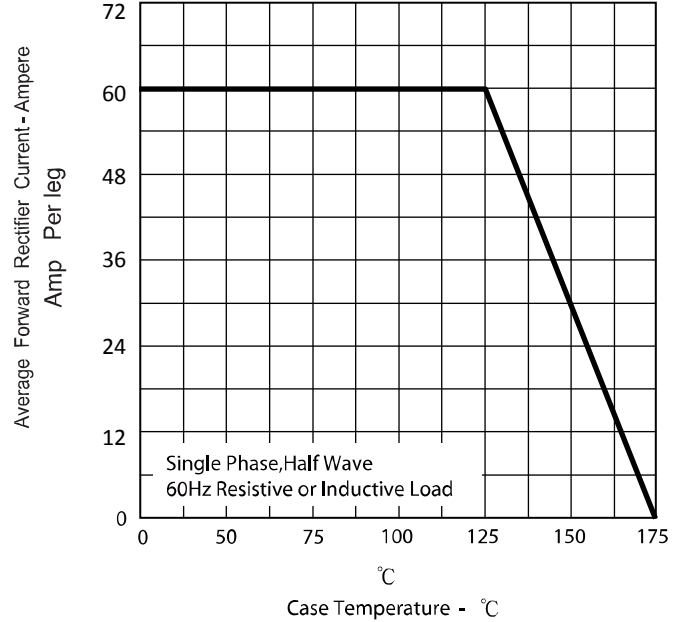


Figure.3 - Peak Forward Surge Current

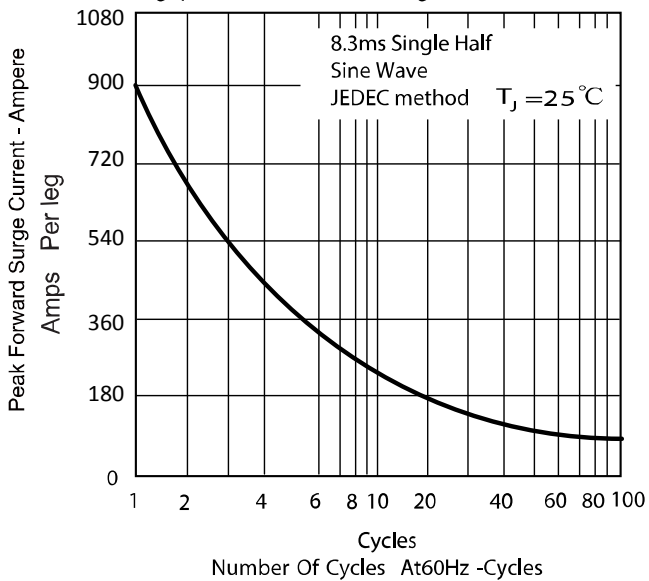
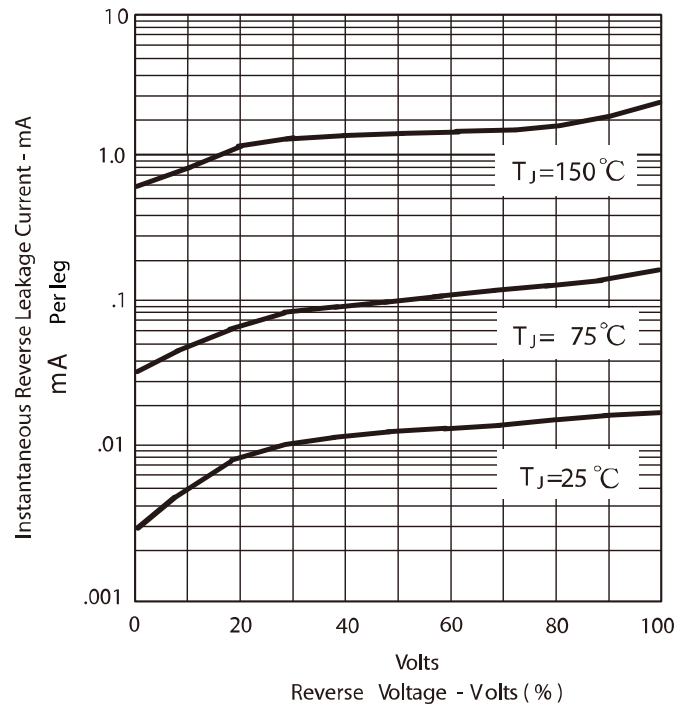


Figure .4 -Typical Reverse Characteristics



Revision History

Date	Revision	Notes
8/10/2014	1.0	Initial release
01/03/2020	1.1	Applied company name change

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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REACH substances of high concern (SVHC) information is available for this product. Since the European Chemicals Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, please contact our office at SemiQ Headquarters in Lake Forest, California to insure you get the most up-to-date REACH SVHC Declaration. REACH banned substance information (REACH Article 67) is also available upon request.

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