



1200V SiC Schottky Diode

GP3D010A120A

VDC	1200 V
Q _C	56 nC
I _F	10 A
T _{j,max}	175 °C

Amp+™ Features

Thin die, low inductance, fast switching
Yield, low cost, low power dissipation
Excellent thermal stability, high frequency
broadband, low capacitance (14 pF)
Low inductance, low forward voltage drop, 0.3 V

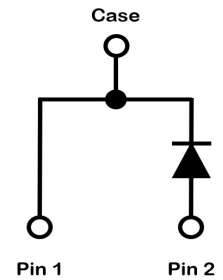
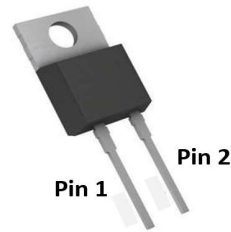
Amp+™ Benefits

Low power dissipation, high frequency
High efficiency, low cost
Excellent thermal stability, high frequency
broadband, low capacitance (14 pF)

Amp+™ Applications

Rectifier, high frequency, low power
Rectifier, high frequency, low power
Rectifier, high frequency, low power
Rectifier, high frequency, low power

Package



Part #	Package	Marking
GP3D010A120A	TO-220-2L	3D010A120



Maximum Ratings

Characteristics	Symbol	Conditions	Values	Unit
B ₂ lh 2 - e c b d L	H _B)	S _B 14 B S _i 064 B	23	
		S _B 014 B S _i 064 B	08	
		S _B 04/ B S _i 064 B	01	
R fd 2 , d duh d e c b d L hd g e d	H _{ERL}	S _B 14 B L 7-2 -	0/ /	
		S _B 00/ B L 7-2 -	8/	
M ₂ , d duh d d j e c b d L	H _E	S _B 14 B L 0/ -	6/ /	
		S _B 14 B L 7-2 -	31	
1 d	f ¹	S _B 00/ B L 7-2 -	23	1 -
		S _B 14 B L 7-2 -	01/ /	
Qd duh d d j d d d 2 L fd	U _{QQL}	S _i 14 B	01/ /	U
Ch cd f f d c d -		S _i 2 - d L d d duh d	1/ /	U. -
Q ₂ d ch-h lh	Q ₂)	S _B 14 B	072	V
N lh fi buh - L2 fd ld / d L d	S _i S _i fd	B ₂ lh 2 -	,44 064	B
R ₂ cd hf ld d L d	S ₂ cd	V d - 2 cd hf d c-	15/	B
L ₂ lh f L ₂ d		L 2 Rb d	0	M _i

Notes:

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Electrical Characteristics

Characteristics	Symbol	Conditions	Values			Unit
			h -	L -	-	
CB a2bjhf 2 L fd	U _{CB}	S ₁ 14 B	01//	,	,	U
Ad jc2 2 L fd	U _{AQ}	H ₀ 0/// S ₁ 14 B	03//	,	,	U
Ch cde c 2 L fd	U _E	H ₀ 0/ S ₁ 14 B	,	0-38	0-54	U
		H ₀ 0/ S ₁ 014 B	,	0-73	,	
		H ₀ 0/ S ₁ 064 B	,	1-01	1-6/	
Qd c d b d L	H _Q	U _Q 01//U S ₁ 14 B	,	1	1/	μ
		U _Q 03//U S ₁ 14 B	,	4	,	
		U _Q 01//U S ₁ 014 B	,	00	,	
		U _Q 01//U S ₁ 064 B	,	28	2//	
S2L b b h h d b g f d	P _B	U _Q 7//U S ₁ 14 B	,	45	,	B
S2L b b h b d	B	U _Q 0U e 0 L G	,	5/ 7	,	E
		U _Q 3//U e 0 L G	,	42	,	
		U _Q 7//U e 0 L G	,	28	,	

Thermal Characteristics

Characteristics	Symbol	Conditions	Values			Unit
			h -	L -	-	
Sgd d h L b d i b h , b - d	Q _{gB}	,	,	/ -71	0-0/	°B.V

Typical Performance

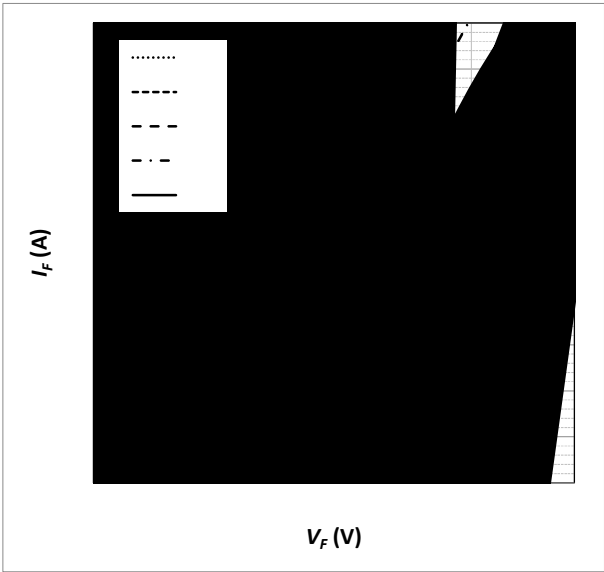


Fig. 1 Forward Characteristics

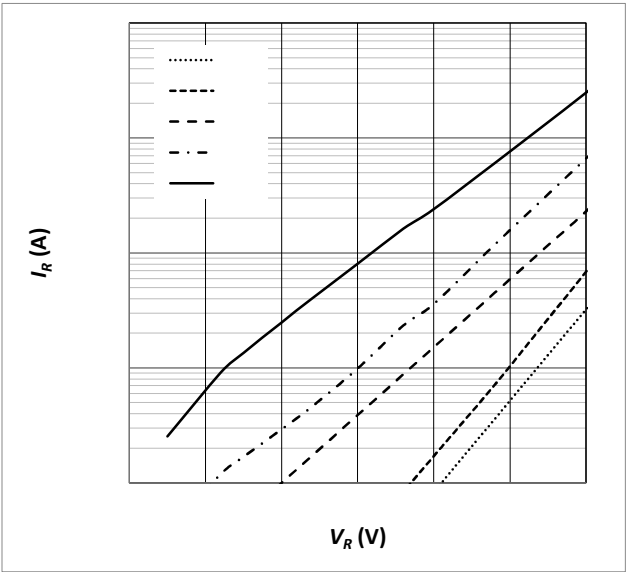


Fig. 2 Reverse Characteristics

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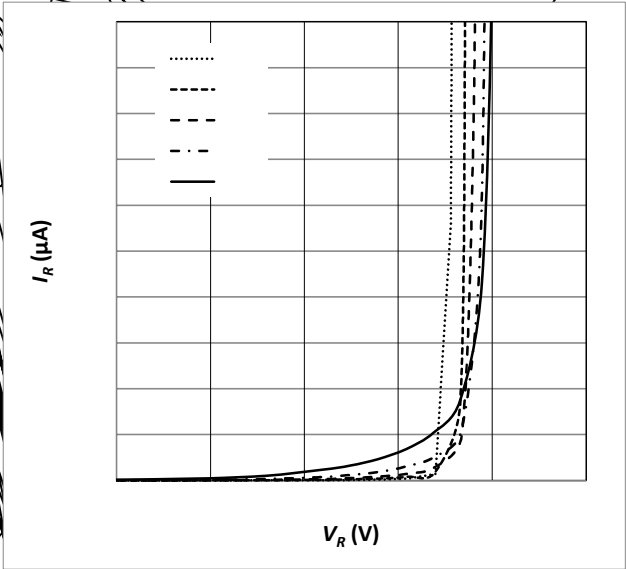


Fig. 3 Reverse Characteristics

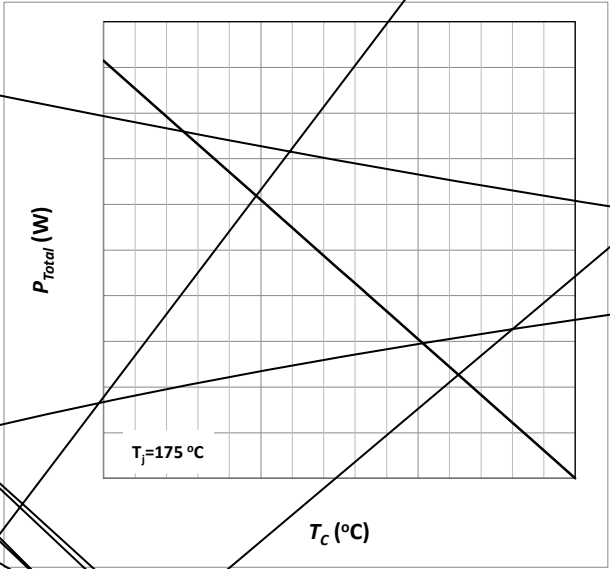


Fig. 4 Power Derating

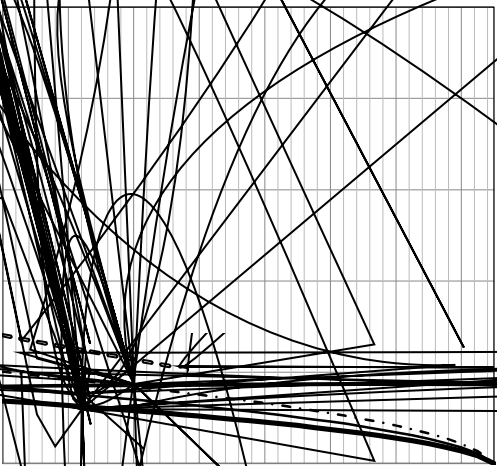


Fig. 5 Current Derating

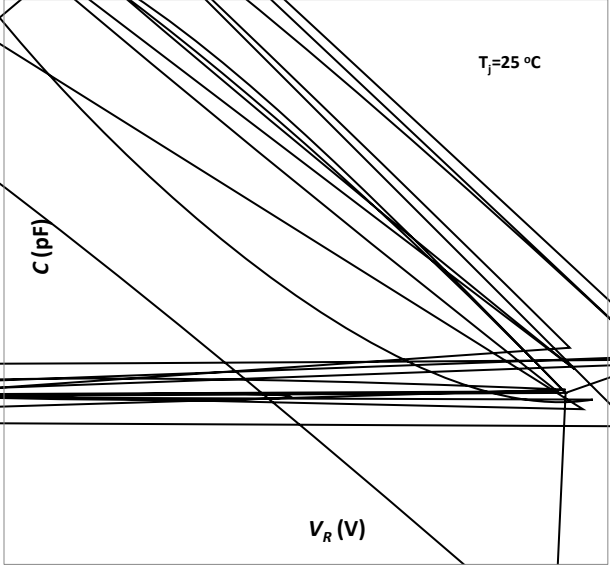


Fig. 6 Capacitance

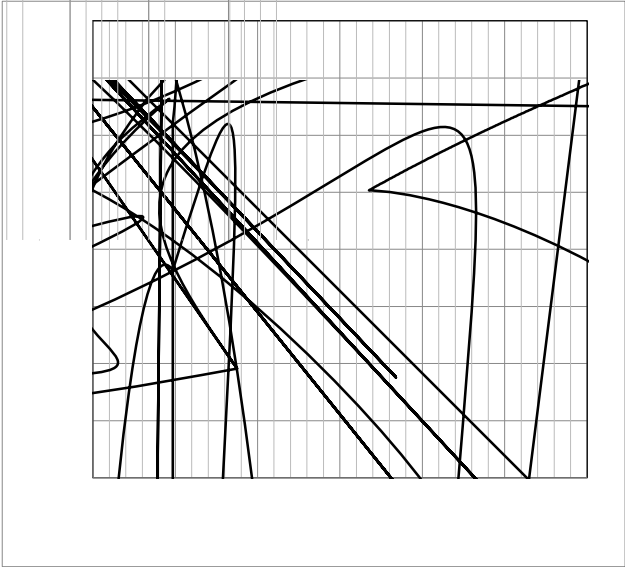


Fig. 7 Capacitive Charge

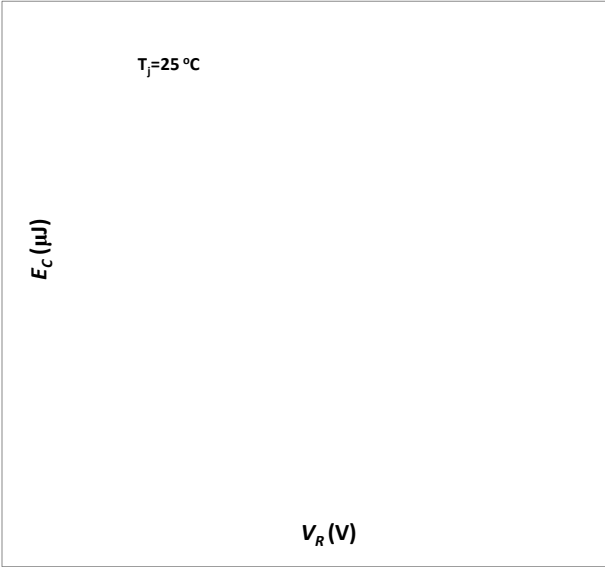


Fig. 8 Typical Capacitance Stored Energy

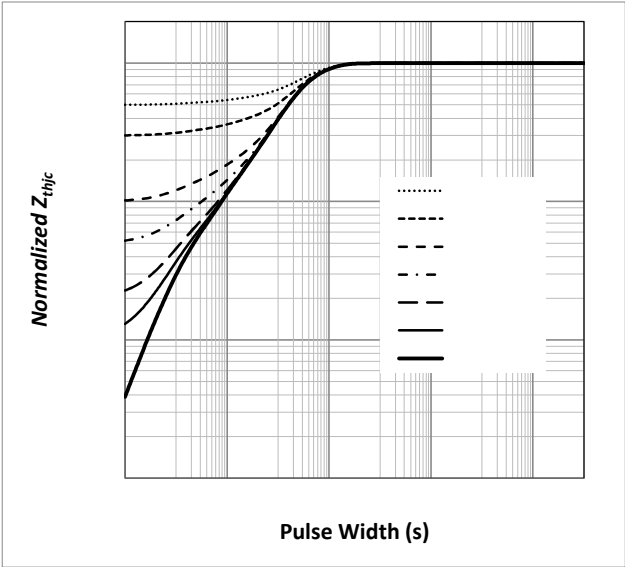


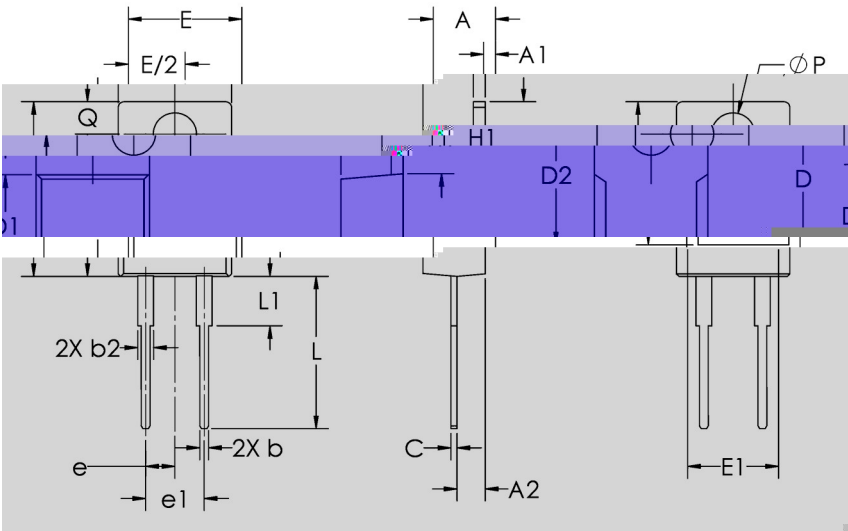
Fig. 9 Transient Thermal Impedance

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Package Dimensions TO-220-2L



Sym	Millimeters		Inches	
	Min	Max	Min	Max
	3-1/	3-6/	/ -054	/ -074
0	0-03	0-3/	/ -1 34	/ -1 44
1	1-1 2	1-81	/ -1 7/	/ -004
a	/ -27	0-1	/ -1 04	/ -1 3/
a1	0-1	0-67	/ -1 3/	/ -1 6/
b	/ -25	/ -65	/ -1 03	/ -1 2/
C	03-11	05-40	/ -45/	/ -54/
C0	7-27	8-3/	/ -22/	/ -26/
C1	01-08	02-02	/ -37/	/ -406
D	8-54	0/ -56	/ -27/	/ -31/
D0	5-75	7-78	/ -16/	/ -24/
d	1-43 ARB		-0/ / ARB	
d0	4-1 7 ARB		-1/ / ARB	
G0	4-73	5-75	/ -12/	/ -16/
K	01-46	03-62	/ -384	/ -47/
K0	2-5/	5-24	/ -031	/ -14/
O	2-42	3-1 8	/ -028	/ -050
P	1-43	2-32	/ -0/ /	/ -024

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Revision History

C id	Qd h h	M2 Ld
01.08.1/08	0-/	H h h d d - d 2 ec L - gddL
3.06.1/1/	0-0	T. h f Q.g b L h e H c Q2L
00.05.1/1/	0-1	T c ldc b j f d ch d - h -
7.5.1/10	0-2	T c ldc - f d Q.g b

RoHS Compliance

REACH Compliance