



GP3D006A065A

## 650V SiC Schottky Diode

VDC	650 V
Q <sub>C</sub>	15 nC
I <sub>F</sub>	6 A
T <sub>j,max</sub>	175 °C

### Amp+™ Features

The double layering technology  
Yielded double layering technology  
Efficient double layering technology  
bgd id, ldc 12 18 1)  
L id, ldc 12 f d id lg 604U

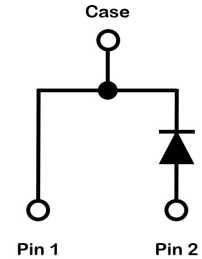
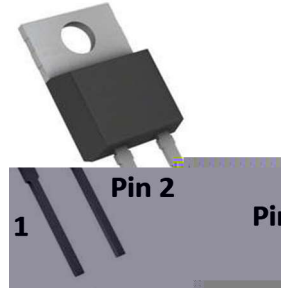
### Amp+™ Benefits

Md d 2 - bgh f 2 - -  
Gf gd d b b  
Qdc bdc gd - h j d h d L  
D - 12 d

### Amp+™ Applications

R hbg 2 cd 2 d - rd. TOR  
Q2 d e b 2 b2 db 2  
N L L db 2 b 2  
DU bg fh f - L L 2 -

### Package



Part #	Package	Marking
GP3D006A065A	TO-220-2L	3D006A065



### Maximum Ratings

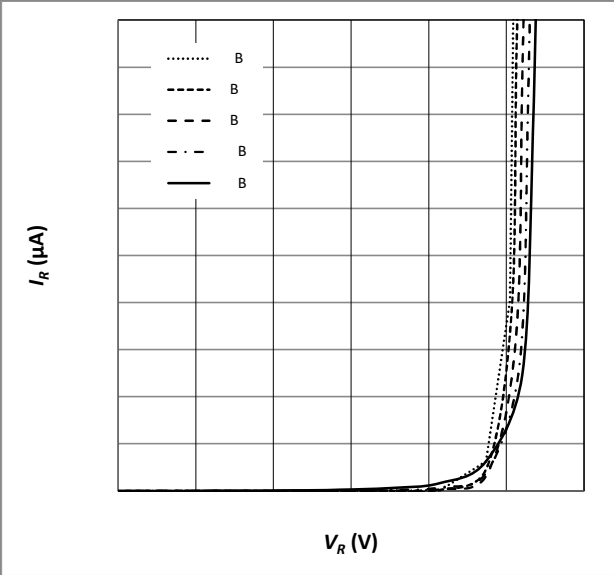
Characteristics	Symbol	Conditions	Values	Unit
B <sub>2</sub> lh 2 - e c b d L	H <sub>B</sub> )	S <sub>B</sub> 14 B S <sub>1</sub> 064 B	1/	
		S <sub>B</sub> 014 B S <sub>1</sub> 064 B	00	
		S <sub>B</sub> 04/ B S <sub>1</sub> 064 B	6	
R fd 2 , d d h h d e c b d L - h d g e d	H <sub>RL</sub>	S <sub>B</sub> 14 B L 7-2 -	24	
		S <sub>B</sub> 00/ B L 7-2 -	20	
M <sub>2</sub> , d d h h d d j e c b d L	H <sub>2</sub>	S <sub>B</sub> 14 B L 0/ -	3//	1 -
1 d	f <sup>1</sup>	S <sub>B</sub> 14 B L 7-2 -	4	
		S <sub>B</sub> 00/ B L 7-2 -	3	
Qd d h h d d j d d d 2 L f d	U <sub>QQL</sub>	S <sub>1</sub> 14 B	54/	U
Ch cd f f d c d -		S <sub>1</sub> 2 - d L d d d h h d	1//	U. -
Q <sub>2</sub> d ch - h L 2	Q <sub>(2 y)</sub> )	S <sub>B</sub> 14 B	60	V
N d h f i b 2 - 12 f d L d L d	S <sub>1</sub> S <sub>2</sub> f d	B <sub>2</sub> lh 2 -	,44 064	B
R <sub>2</sub> cd h f L d d L d	S <sub>2</sub> cd	V d - 2 cd h f d c.	15/	B
L <sub>2</sub> lh f L 2 d		L 2 R b d	0	M

Notes:

B

b Q<sub>B</sub>

.....	B
-----	B
- - - -	B
- . -	B
_____	B



$T_J=25\text{ }^{\circ}\text{C}$

$C (pF)$

$V_R (V)$

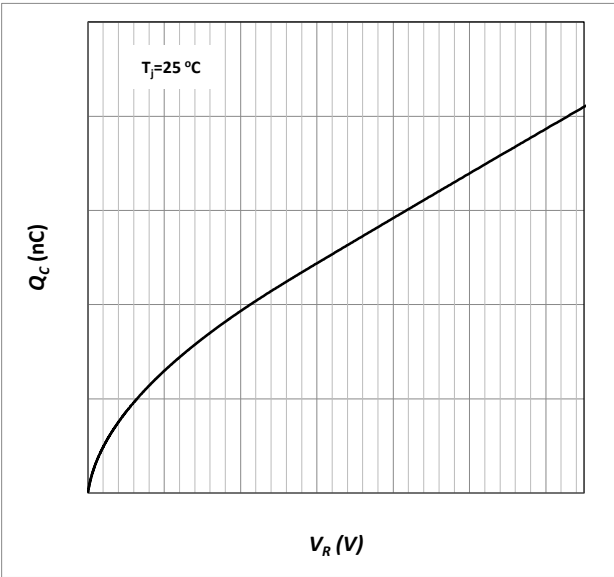


Fig. 7 Capacitive Charge

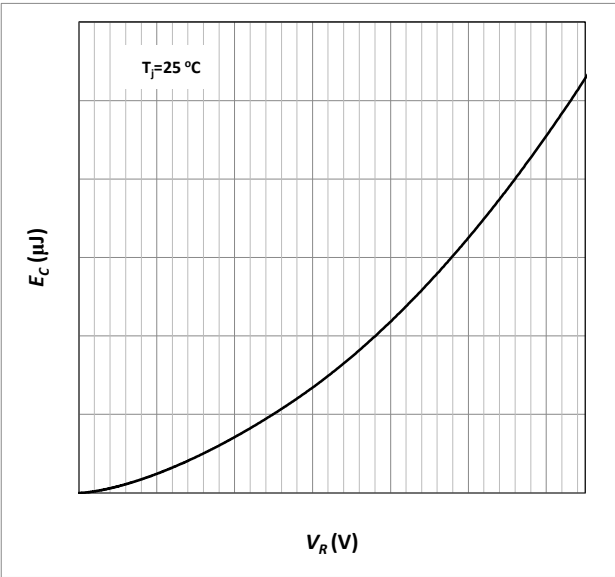


Fig. 8 Typical Capacitance Stored Energy

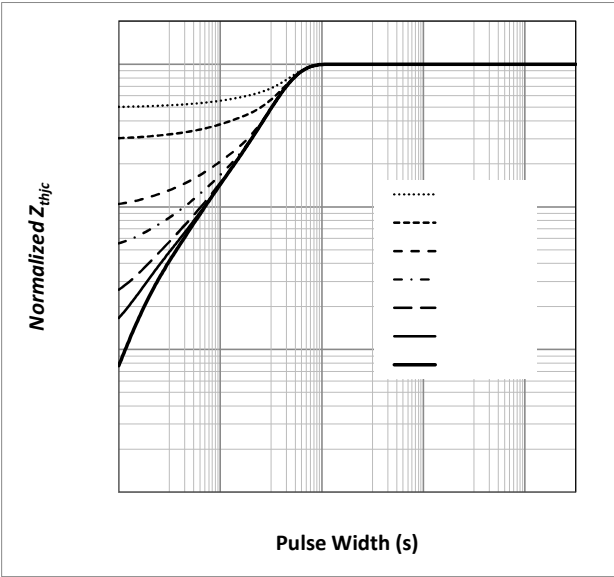


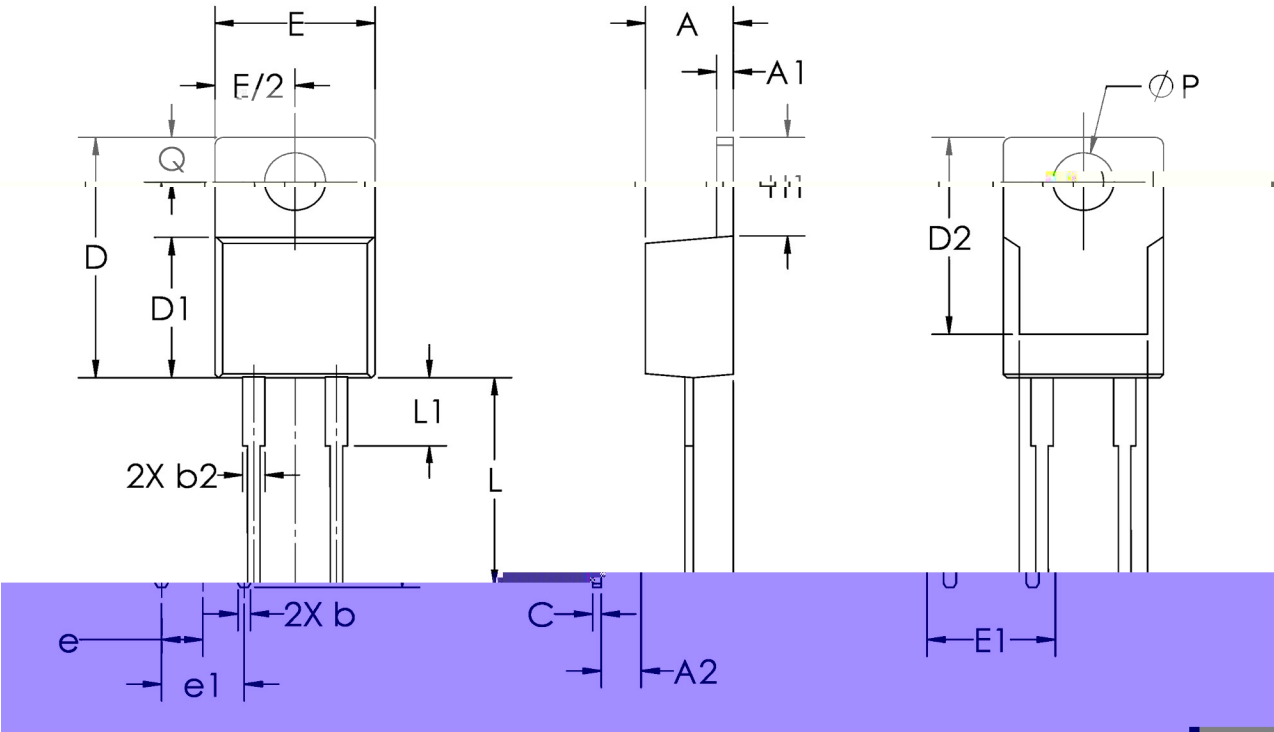
Fig. 9 Transient Thermal Impedance

650V SiC Schottky Diode

Amp+™

GP3D006A065A

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

## 650V SiC Schottky Diode

**Amp<sup>+</sup>™**

**GP3D006A065A**

## Revision History

[illegible]M

## RoHS Compliance

Q b b b b B Q b Q  
b b b bb b b b b

## REACH Compliance

[illegible]