F F i Ci ec Cd g f d

DE C

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- -

F C CD I

		- - - -
		-
		-

D D C

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PARAMETER	DEFINITION	MIN	MAX	UNIT
		-		

C D C

PARAMETER	DEFINITION	MIN	MAX	UNIT
	- - - -	-		
	- - - -	-		

(1)
(2)

D D

PARAMETER	THERMAL METRIC	DFN-20L	UNIT

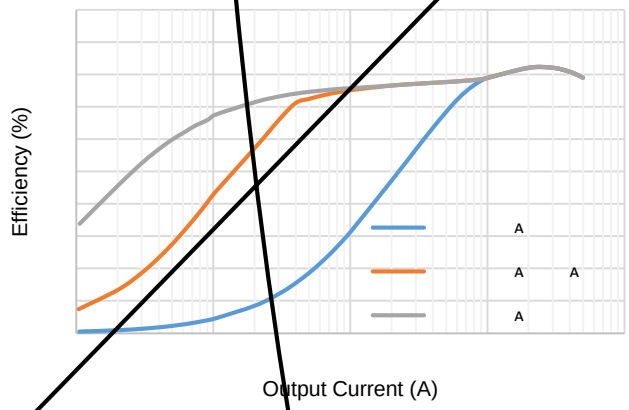
D D CD C

-

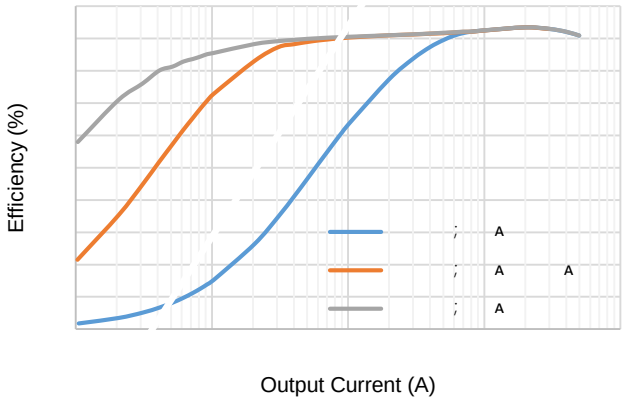
SYMBOL	PARAMETER	TEST CONDITION	MIN TYP MAX	UNIT
Po er S ppl and O p				
Reference and Con rol Loop				
Po er MOSFETs				
	-			
	-			
Enable and Sof -s ar				
	-			
Opera ion Mode				
S i ching Freq enc				
	-			
	-			
Po er Good				

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
	-					
Pro ec ion						

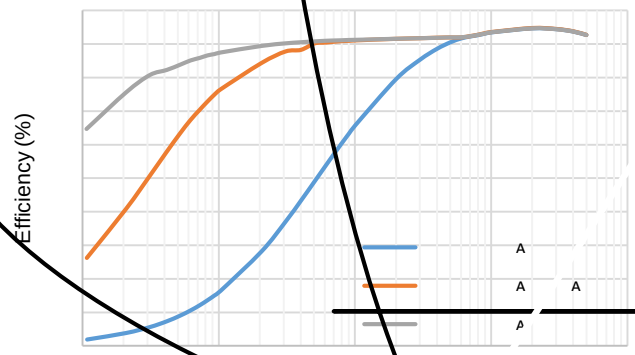
DI D CD C



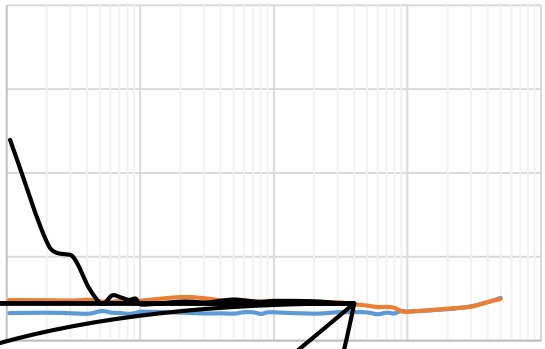
Output Current (A)



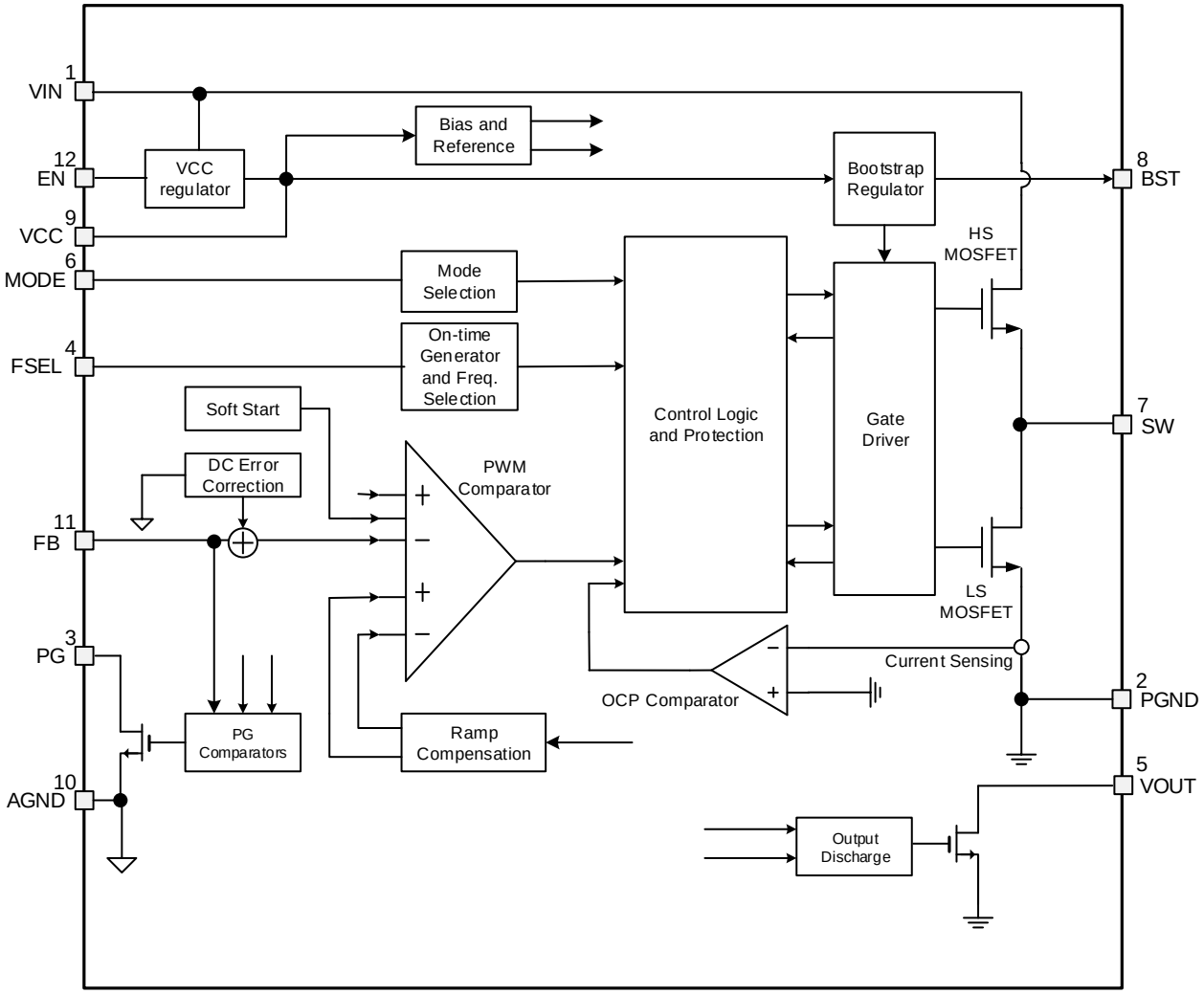
Output Current (A)



Output Current (A)



E D


VIN
1
EN
12
VCC
9
MODE
6
FSEL
4
FB
11
PG
3
AGND
10
VCC regulator
Bias and Reference
Bootstrap Regulator
BST
8
HS MOSFET
Mode Selection
On-time Generator and Freq. Selection
Soft Start
DC Error Correction
PWM Comparator
Control Logic and Protection
Gate Driver
SW
7
LS MOSFET
Current Sensing
OCP Comparator
PGND
2
PG Comparators
Ramp Compensation
VOUT
5
Output Discharge

D

O er ie

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Cons an on- ime (COT) Mode Con rol

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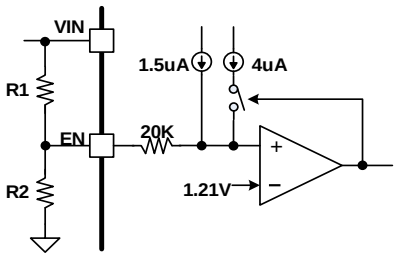
Enable and Under Vol age Locko Threshold



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O p Vol age

±1% tolerance over the operating temperature

-
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In ernal Sof -S ar

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-

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S i ching Freq enc Selec ion

Table 1. FSEL Pin Se - p for S i ching Freq enc Selec ion

-			

Mode Selec ion

Table 2. MODE Pin Se - p for Mode Selec ion

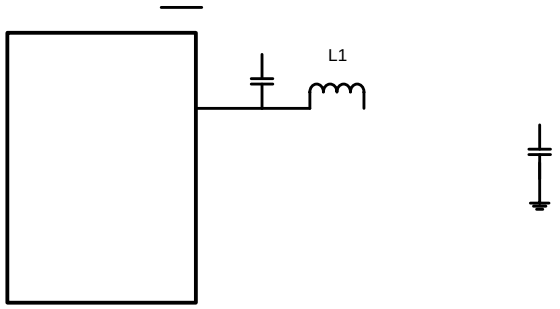
-			

Po er Good (PG)

Thermal Sh do n

D D

T pical Applica ion



Design Parame ers

Design Parame ers	E ample Val e

Inp Capaci or Selec ion

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Ind c or Selec ion

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-

-

O O G O R Z

O p Capaci or Selec ion

-

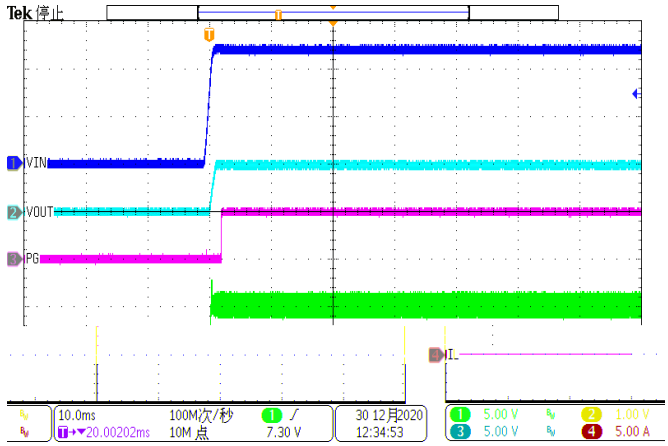
-
-
-
-
-
-

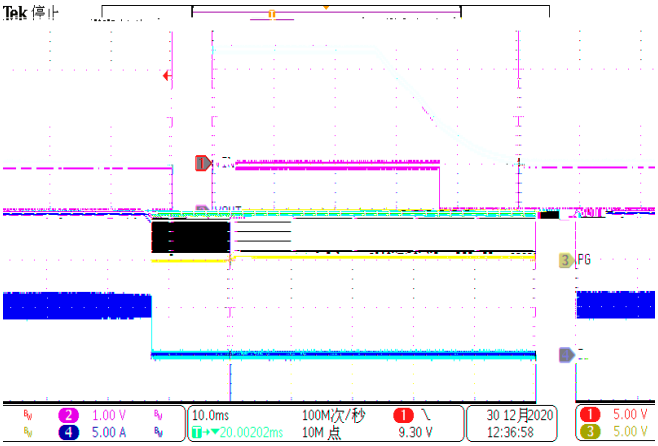
O p Feedback Resis or Di ider Selec ion

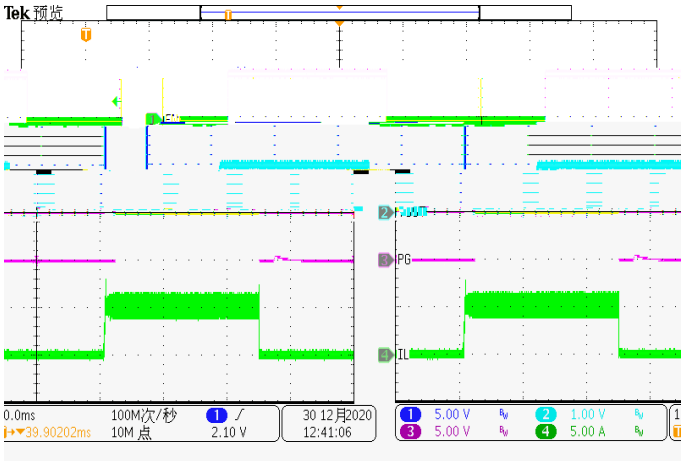
Table 3 Recommended Componen Val es for T pical O p Vol age (Vin=12V)

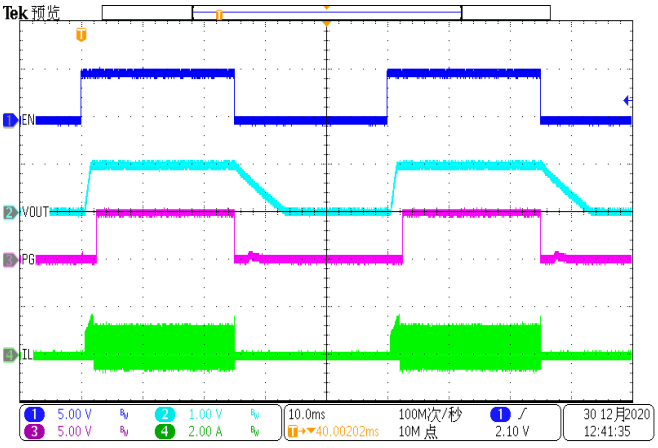
Fs (kH)	Vo (V)	L (H)	R7 (k)	R8 (k)	Cf (pF)

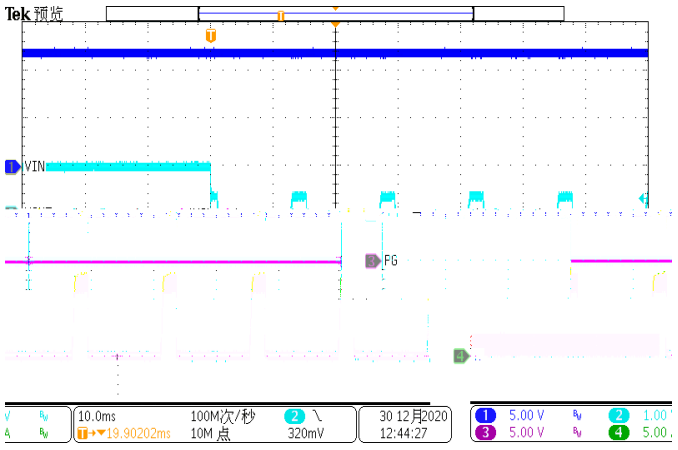
Applica ion Wa eforms

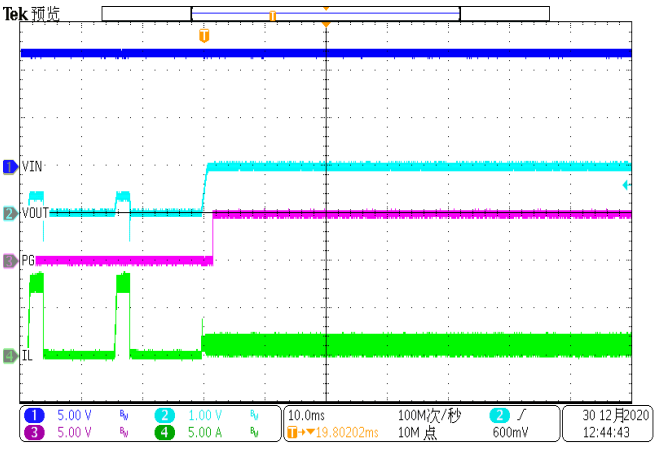




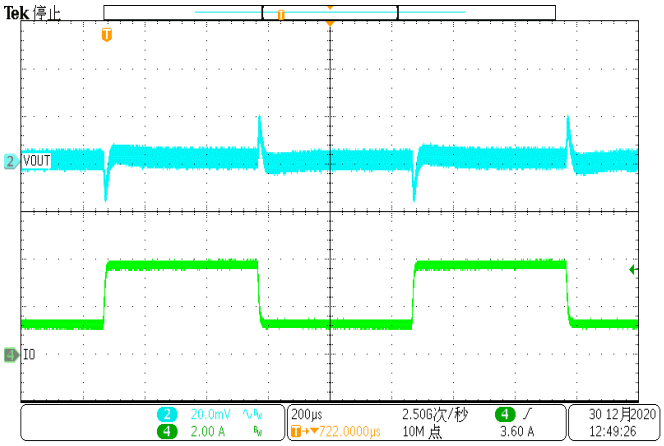


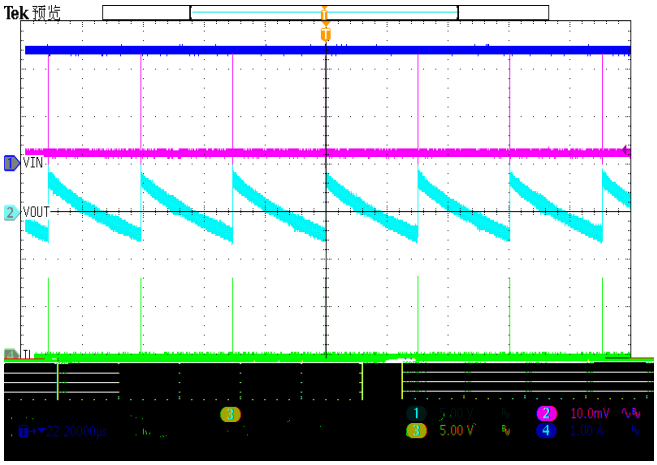






Applica ion Wa eforms(Con in ed)





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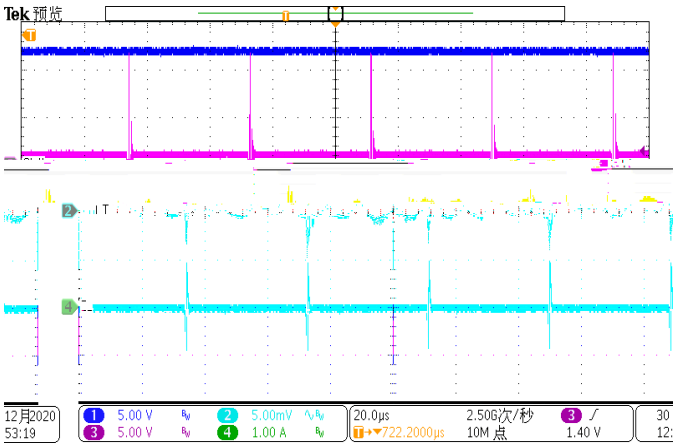
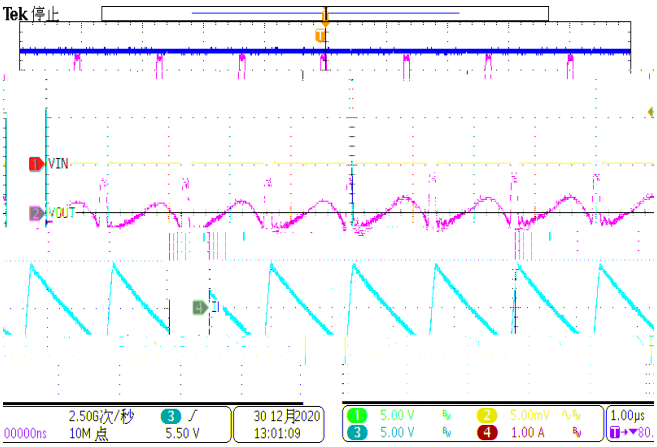
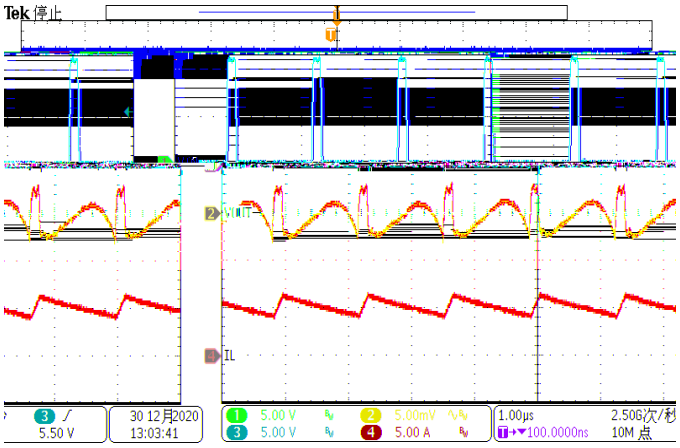


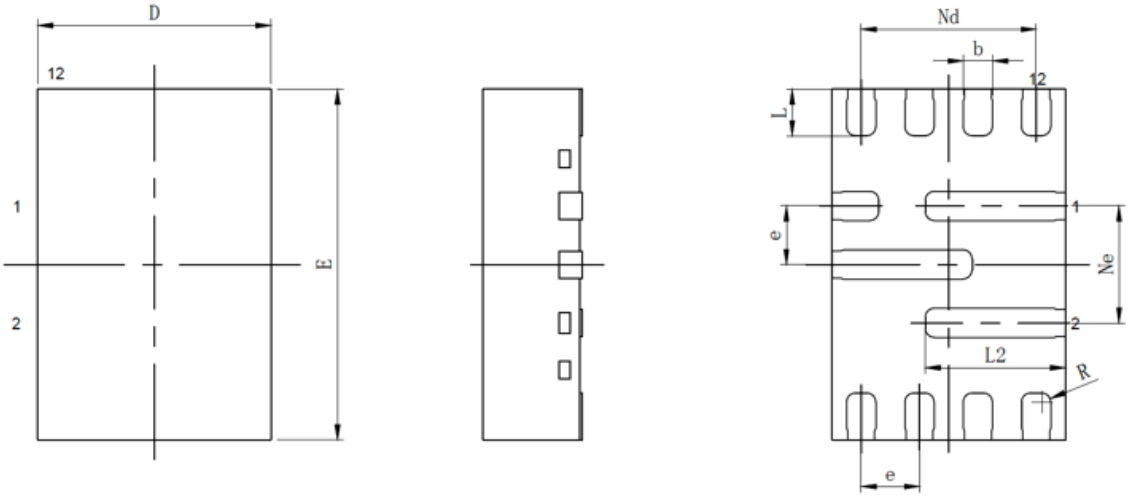


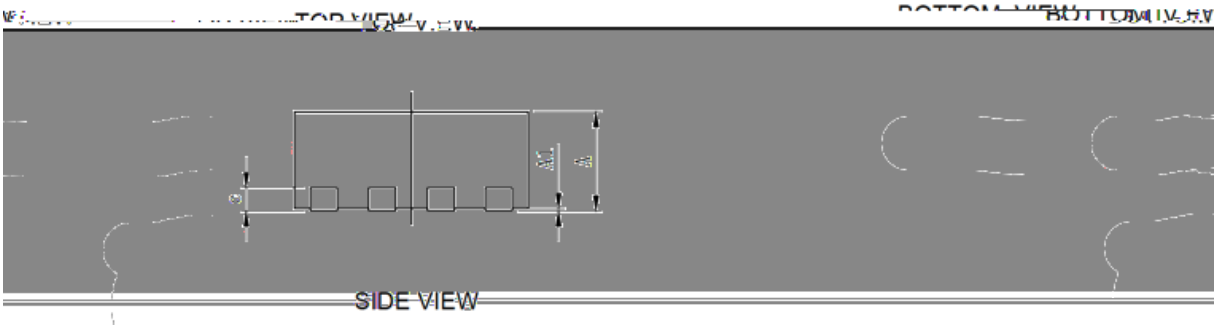


La o G ideline

1.
2.
3.
4.
5.
6.

D





SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A			
A1			
b			
c			
D			
e			
Nd			
Ne			
E			
L			
L2			
R			

NOTE:

1. -
2.
3.
4.
5.

D **D**

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A			