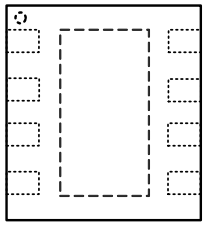
2.2V-5.5V Vin, 1A, 8uA I_Q, Low-Dropout Regulator

±

±

BeWKeTU_X7Xi VX	Bhgchg Ibg_T X	CTV T X	CTV T X Te a	C AF	F	GeTafcbeg XWT DhTagg



F G 4 7G5E

A4 8	A4 8	C A HA GBA	

C4E4 8G8E	78 AGBA	A	4K	HAG

C4E4 8G8E	78 AGBA	A	4K	HAG

(1)

(2)

C4E4 8G8E	78 AGBA	A	4K	HAG

(1)
(2)

PARAMETER（4-layer）	G 8E 4 8GE	7 A&K&	UNIT
(1)			
(2)			
R JA_EVM(3)			

(1) .

(2) .

(3)

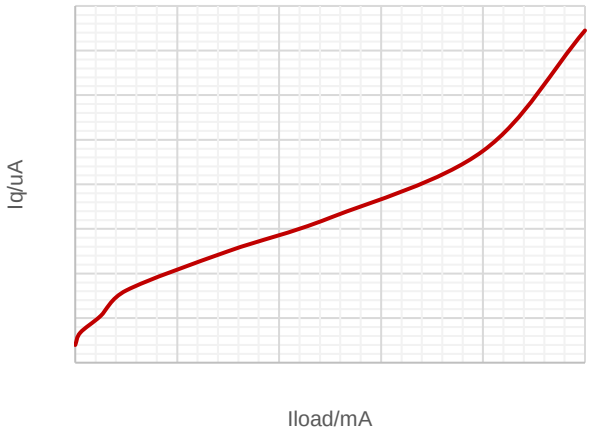
F G 4 FXeXf

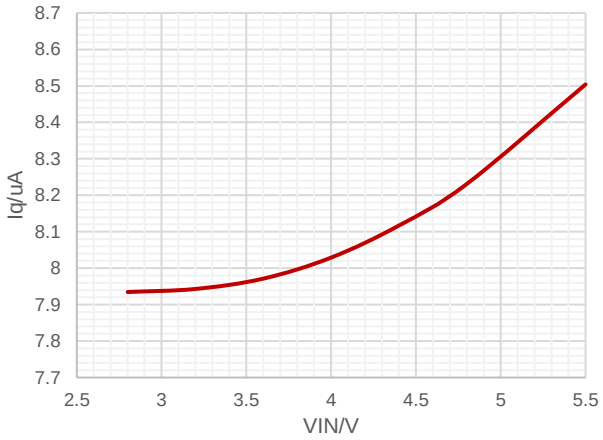
FL 5B	C4E4 8G8E	G8FG BA7 GBA	A GLC 4K	HAG
Cb Xe: bbW				
4 Vgi X 7 f V Te X				
G Xe T_CebgXVgba				

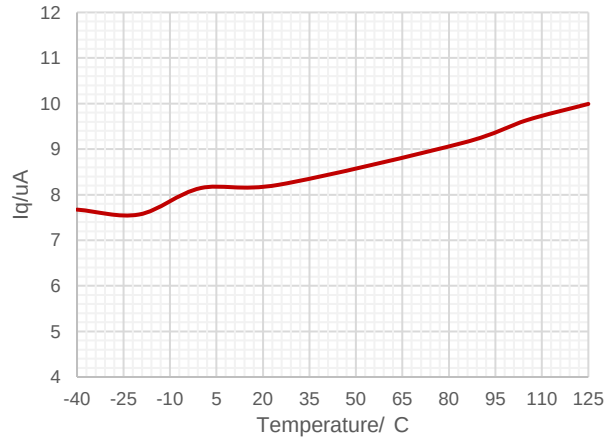
(1)

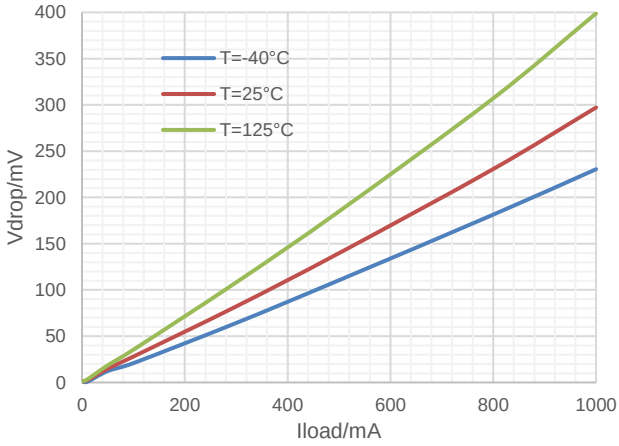
(2)

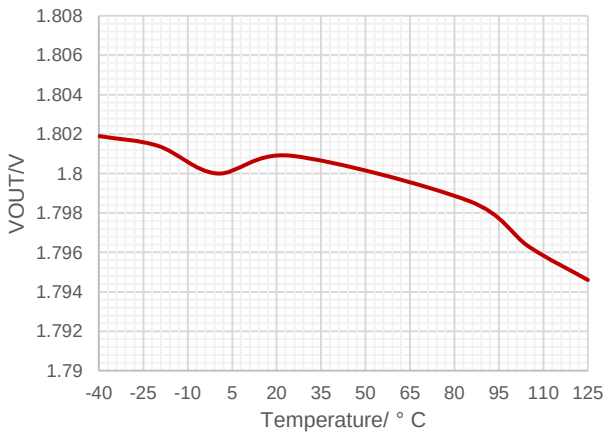
(3)

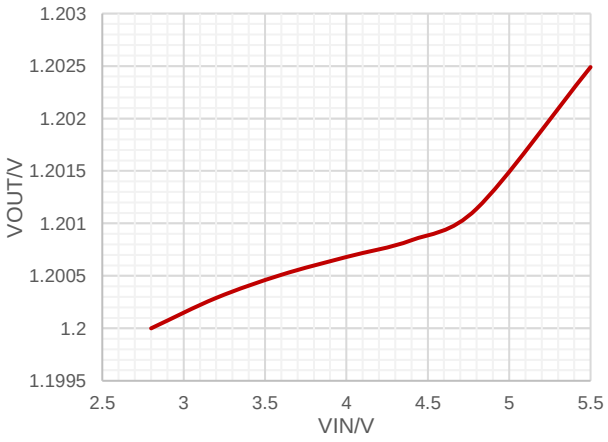

Iq/uA
Iload/mA

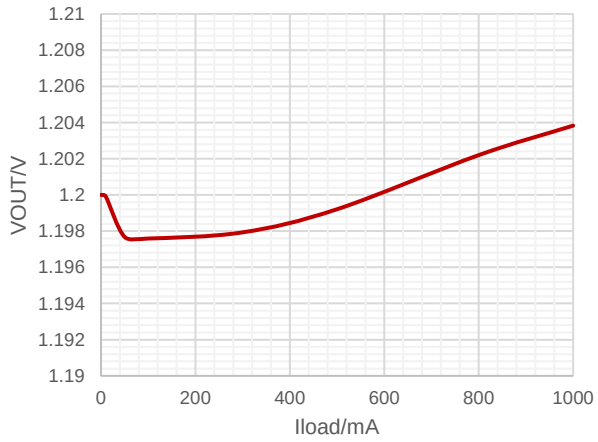

8.7
8.6
8.5
8.4
8.3
8.2
8.1
8
7.9
7.8
7.7
Iq/uA
2.5
3
3.5
4
4.5
5
5.5
VIN/V


12
11
10
9
8
7
6
5
4
Iq/uA
-40
-25
-10
5
20
35
50
65
80
95
110
125
Temperature/ C


400
350
300
250
200
150
100
50
0
Vdrop/mV
T=-40°C
T=25°C
T=125°C
0
200
400
600
800
1000
Iload/mA


1.808
1.806
1.804
1.802
1.8
1.798
1.796
1.794
1.792
1.79
VOUT/V
-40
-25
-10
5
20
35
50
65
80
95
110
125
Temperature/ ° C


1.203
1.2025
1.202
1.2015
1.201
1.2005
1.2
1.1995
VOUT/V
2.5
3
3.5
4
4.5
5
5.5
VIN/V



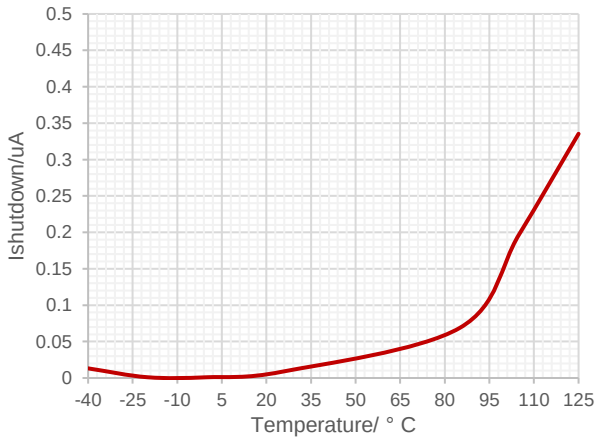


Figure 8. Shutdown Current vs Ambient Temperature

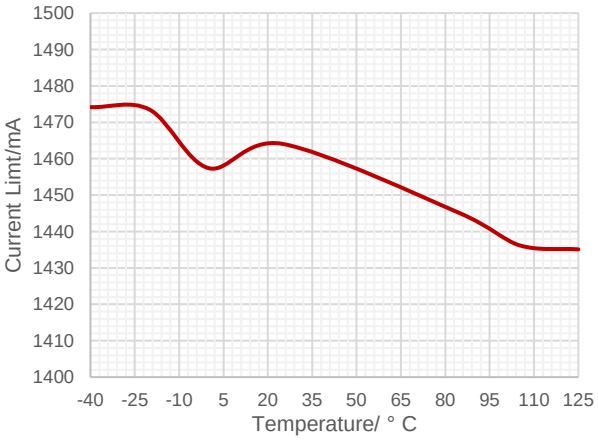


Figure 9. Output Current Limit vs Ambient Temperature

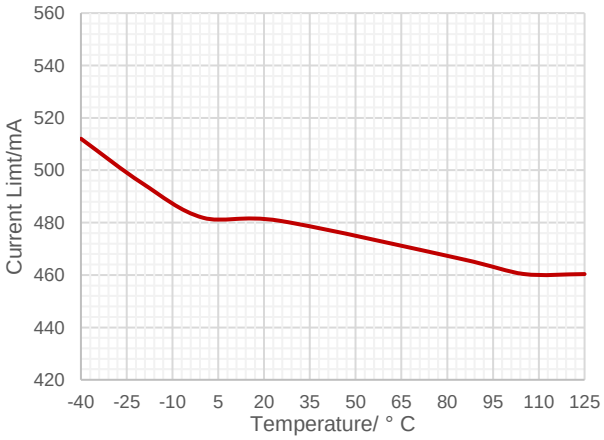
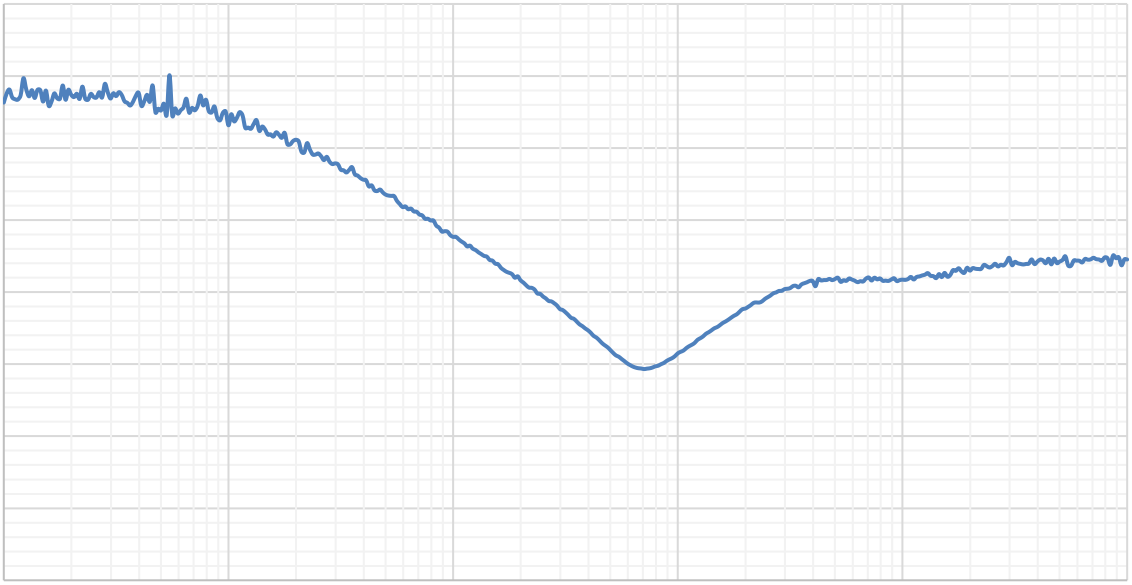
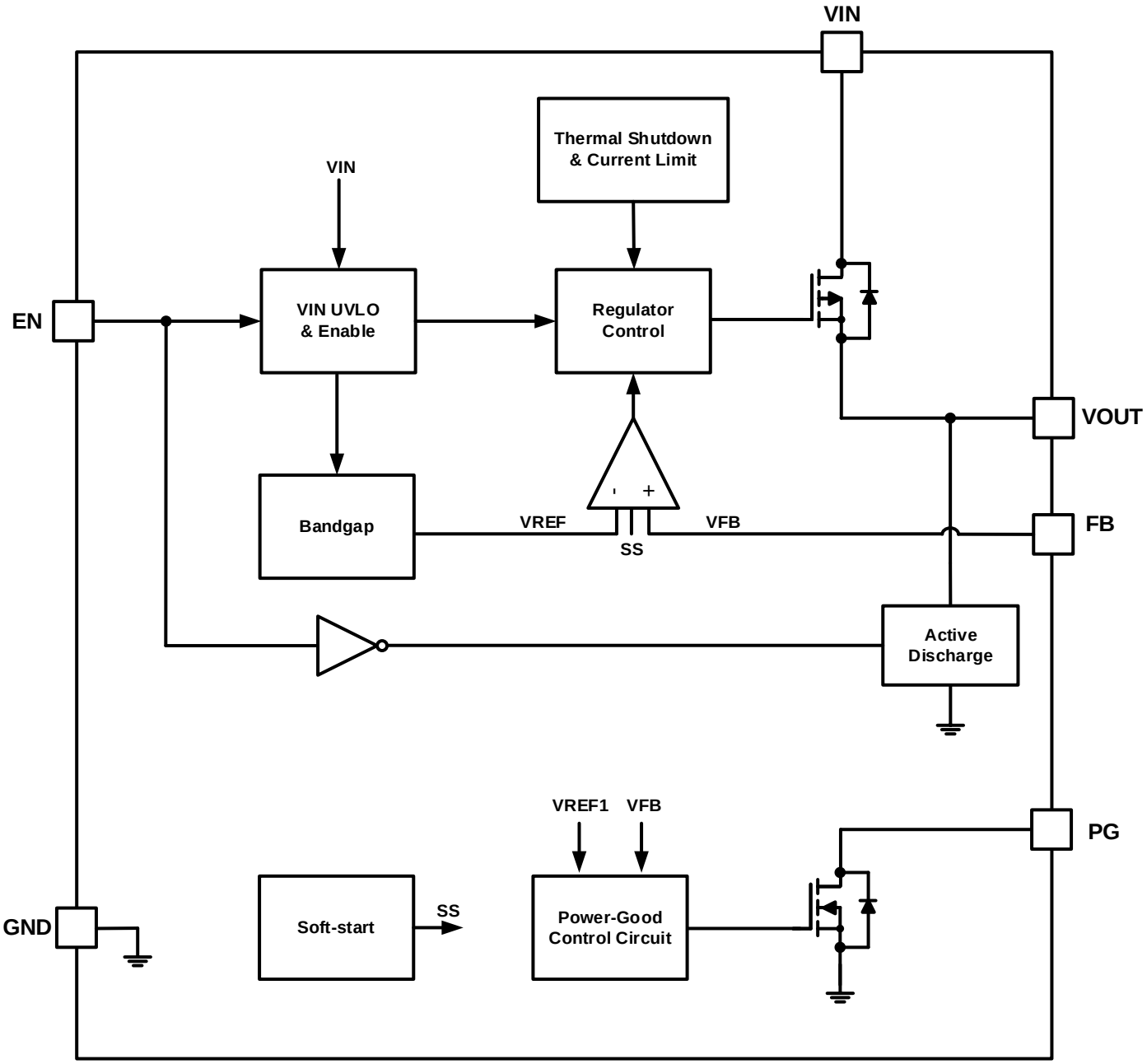


Figure 10. Short Current Limit vs Ambient Temperature

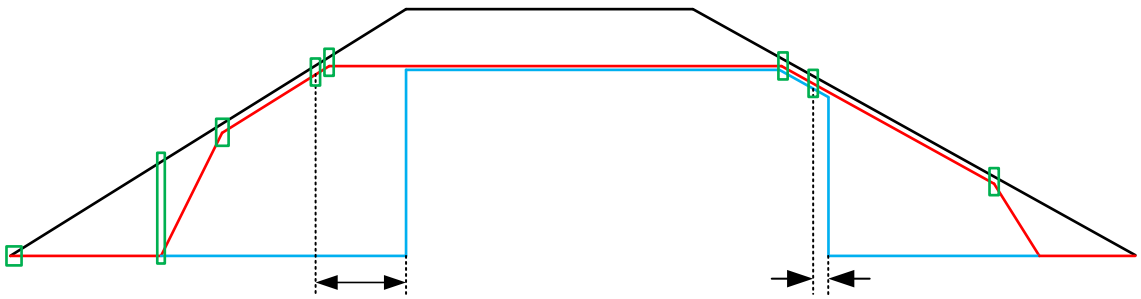
F G




VIN
Thermal Shutdown
& Current Limit
VIN
EN
VIN UVLO
& Enable
Regulator
Control
VOUT
Bandgap
VREF
VFB
FB
SS
Active
Discharge
VREF1
VFB
PG
GND
Soft-start
SS
Power-Good
Control Circuit

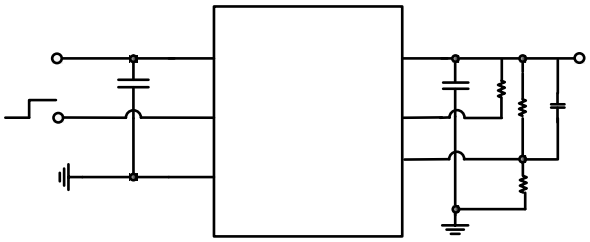
Bi Xa X

Cb Xe: bbWTaWCb Xe: bbW7 X_Tl



G Xe T_F hgWb a

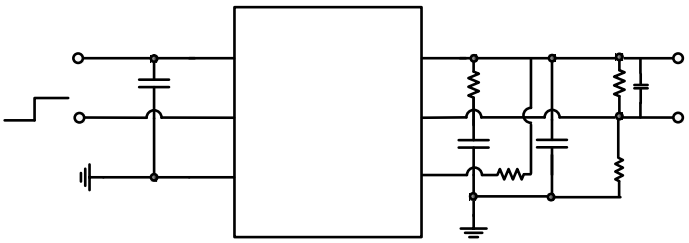
G c VT_Tcc_VTgba -



7Xf a CTeT XgXef

7Xf a CTeT XgXef	8kT c_XI T_hX

Gc VT_Tcc_VTgba &-



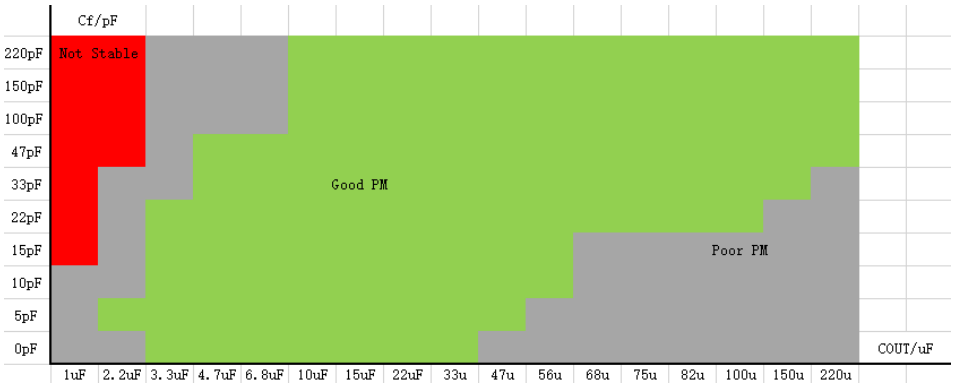
7Xf a CTeT XgXef

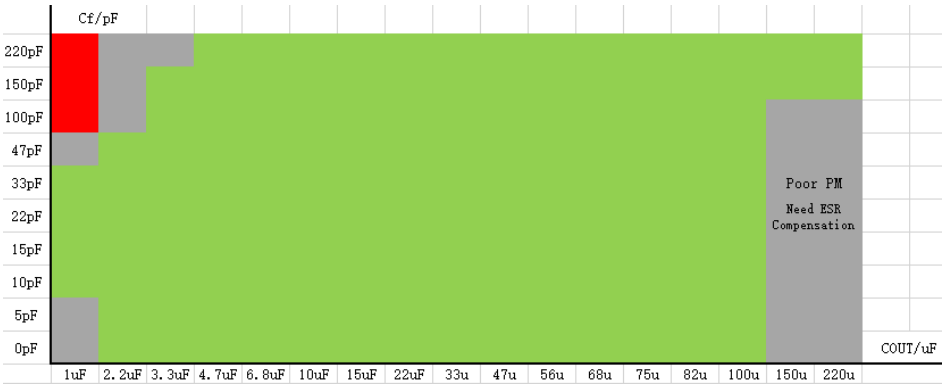
7Xf a CTeT XgXef	8kT c_XI T_hX

Bhgchgl b_gT X

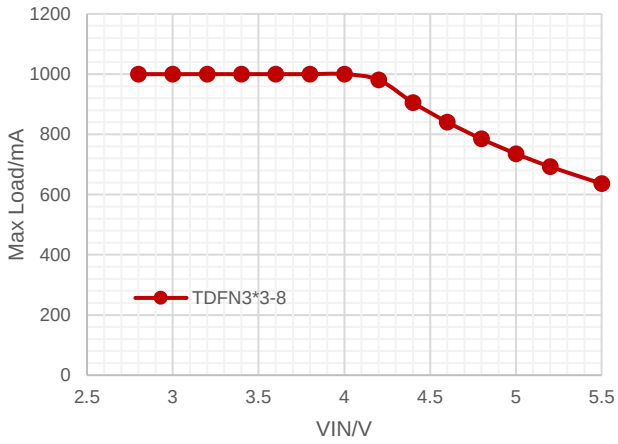
GTU_X - b cXaf Tgba l T_hXf YbeGl c VT_Bhgchgl b_gT X TcTVgbe b UaTgbaf

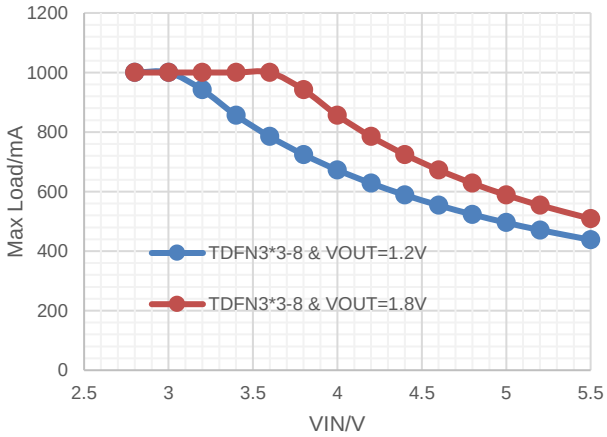
achg TcTVgbeTaWBhgchg TcTVgbe

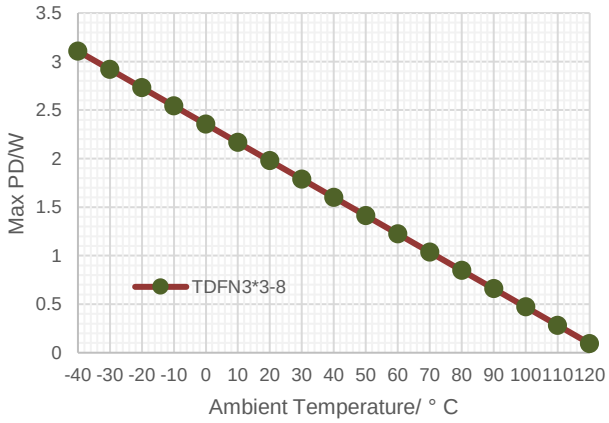

Cf/pF
220pF
150pF
100pF
47pF
33pF
22pF
15pF
10pF
5pF
0pF
Not Stable
Good PM
Poor PM
COUT/uF
1uF
2.2uF
3.3uF
4.7uF
6.8uF
10uF
15uF
22uF
33u
47u
56u
68u
75u
82u
100u
150u
220u


Cf/pF
220pF
150pF
100pF
47pF
33pF
22pF
15pF
10pF
5pF
0pF
Poor PM
Need ESR
Compensation
COUT/uF
1uF
2.2uF
3.3uF
4.7uF
6.8uF
10uF
15uF
22uF
33u
47u
56u
68u
75u
82u
100u
150u
220u

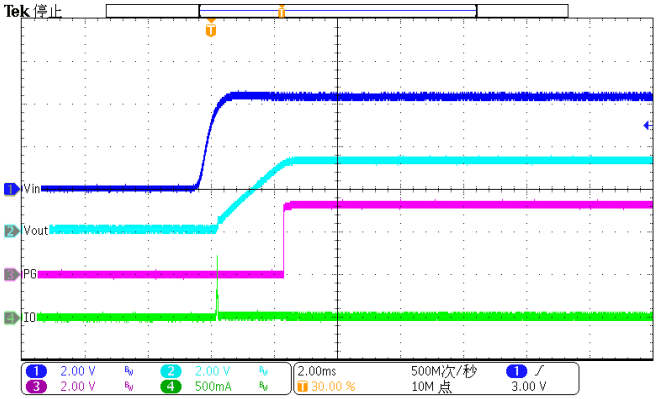
Cb Xe7 f f cTgba TaWG Xe T_CXeYbe TaVX

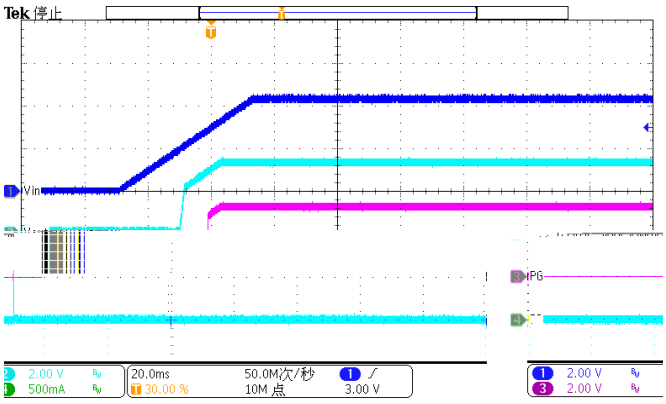

1200
1000
800
600
400
200
0
Max Load/mA
TDFN3*3-8
2.5
3
3.5
4
4.5
5
5.5
VIN/V

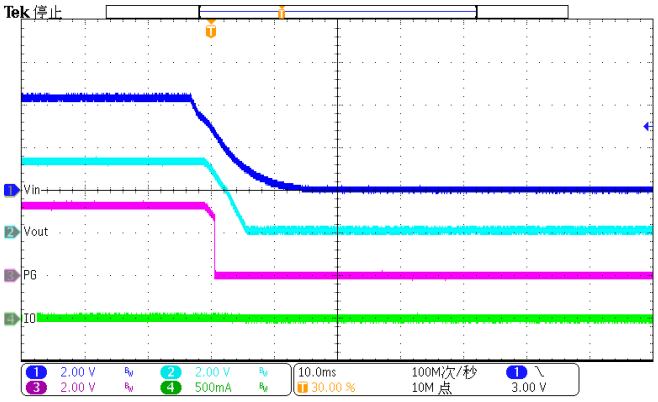

1200
1000
800
600
400
200
0
Max Load/mA
TDFN3*3-8 & VOUT=1.2V
TDFN3*3-8 & VOUT=1.8V
2.5
3
3.5
4
4.5
5
5.5
VIN/V

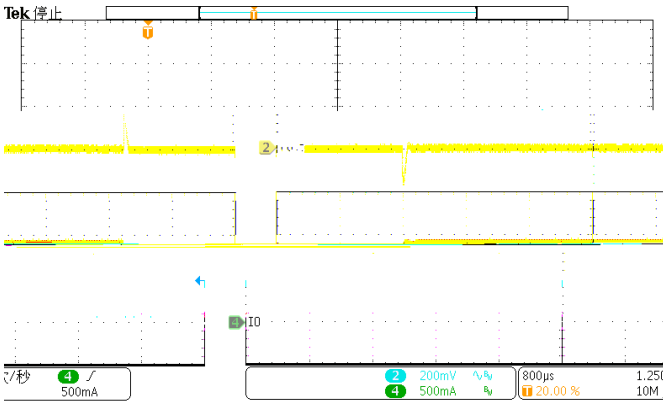

3.5
3
2.5
2
1.5
1
0.5
0
Max PD/W
TDFN3*3-8
-40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100110120
Ambient Temperature/ ° C

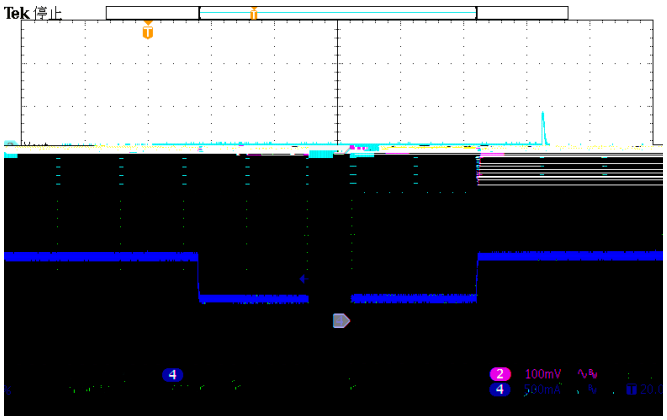
4cc_VTgba J Ti XYbe f











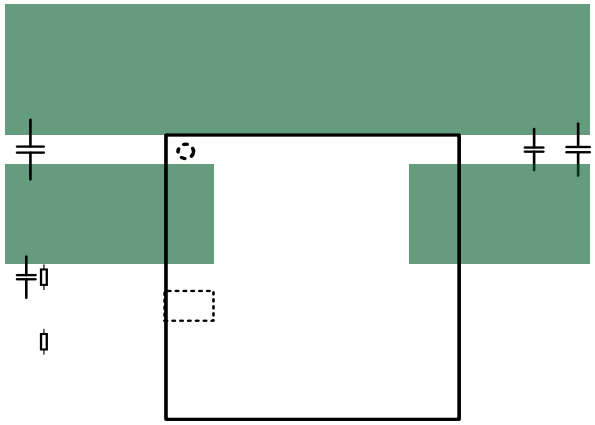
4 cc_VTgba J Ti XYbe f bagahXW

Tl bhg: h WX_aX

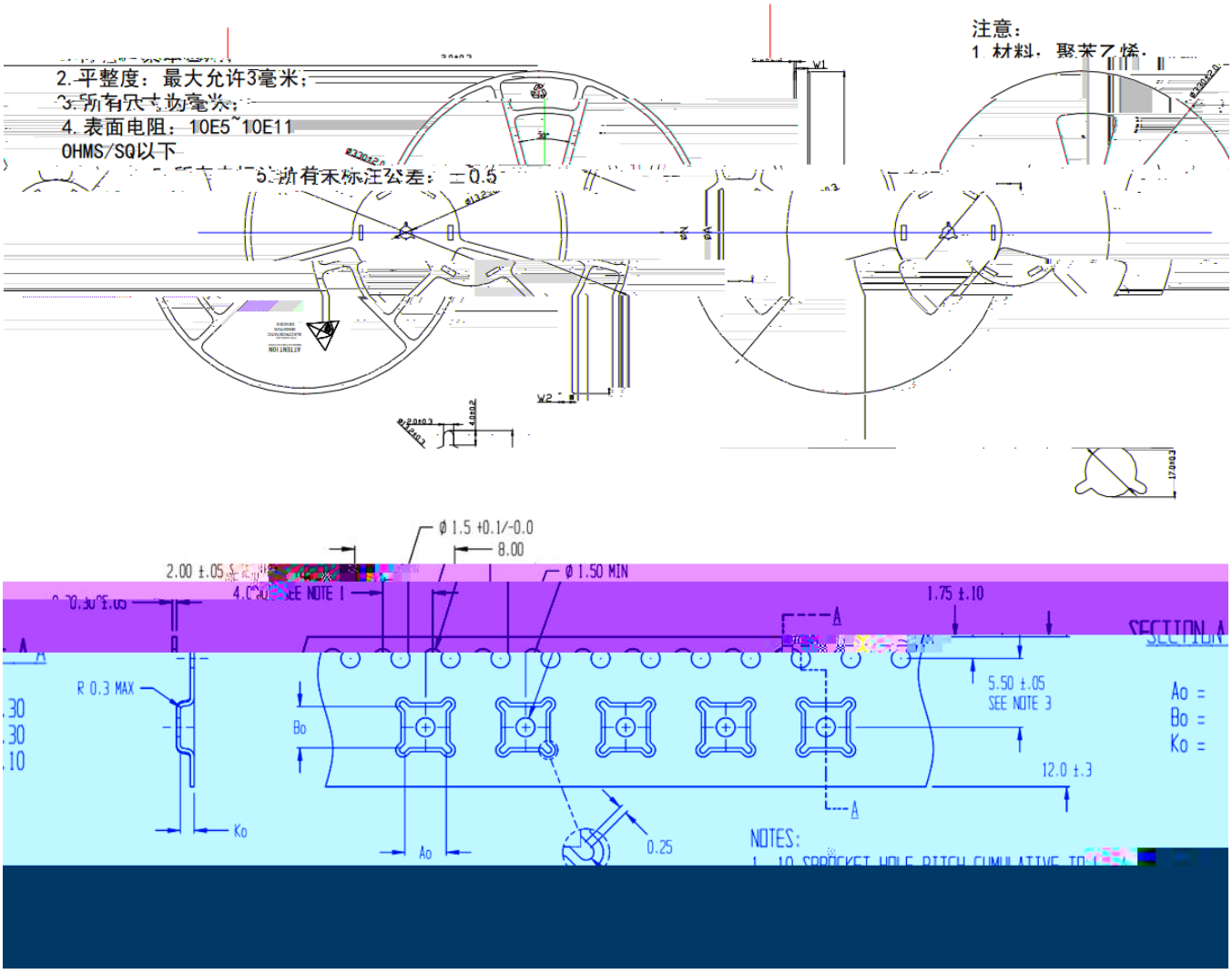
1.
2.

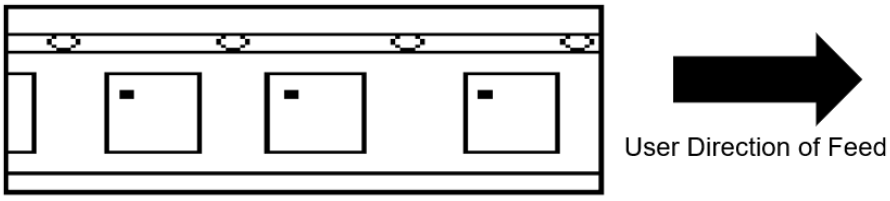
3.
4.

5.



F G 4 7G5E


注意：
1 材料：聚苯乙烯.
2.平整度：最大允许3毫米；
3.所有尺寸为毫米；
4.表面电阻：10E5~10E11
OHMS/SQ以下
5.所有未标注公差：±0.5
Ø 1.5 +0.1/-0.0
8.00
Ø 1.50 MIN
2.00 ±.05
4.00 ±.10
SEE NOTE 1
1.75 ±.10
SECTION A
R 0.3 MAX
Bo
Ko
Ao
5.50 ±.05
SEE NOTE 3
12.0 ±.3
0.25
NOTES:
Ao =
Bo =
Ko =


User Direction of Feed

ABG 8-