60V Input, 100mA Output Current, Low Quiescent Current LDO

FEATURES

DESCRIPTION

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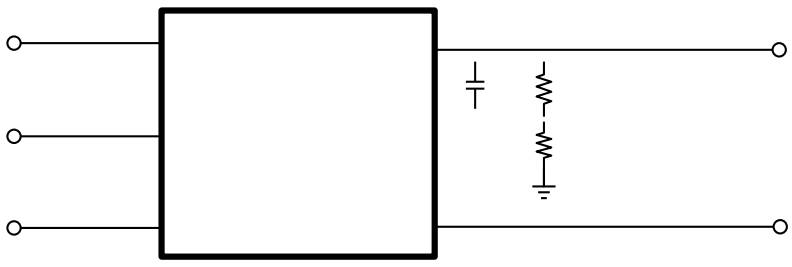
APPLICATIONS

TYPICAL APPLICATION

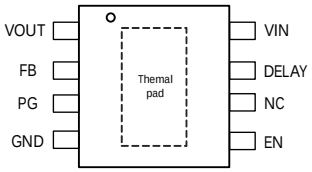


REVISION HISTORY

DEVICE ORDER INFORMATION

2UGHUDEOH3DUW1XPEHU	2XWSXW9ROWDJH	3DFNDJH	3DFNDJH0DUNLQJ	3,16	06/	7UDQVSRUW0HGLDQWLW\

PIN CONFIGURATION



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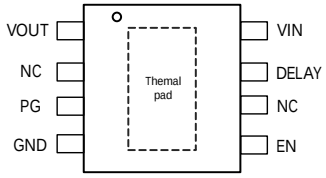

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PIN FUNCTIONS

EMSOP-8L/SCT71601A00Q/ SCT71601FxxQ:

1$0(	1$0(	3,1)81&7,21
		Ø
	%	

RECOMMENDED OPERATING CONDITIONS

3$5$0(7(5	'(),1,7,21	0,1	0$;	81,7

ABSOLUTE MAXIMUM RATINGS

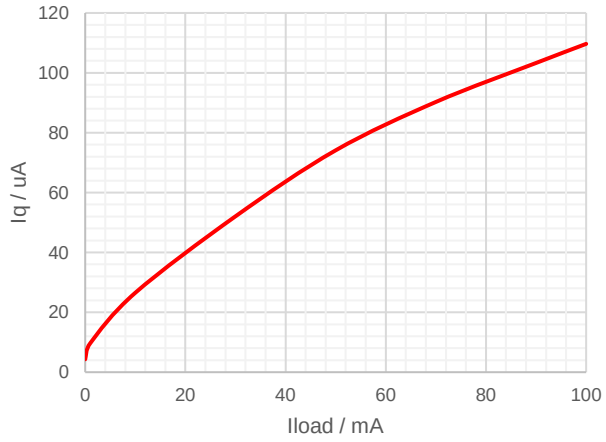
3$5$0(7(5	'(),1,7,21	0,1	0$;	81,7

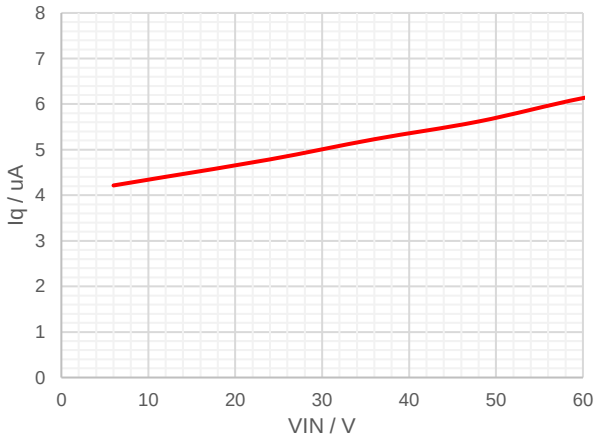
THERMAL INFORMATION

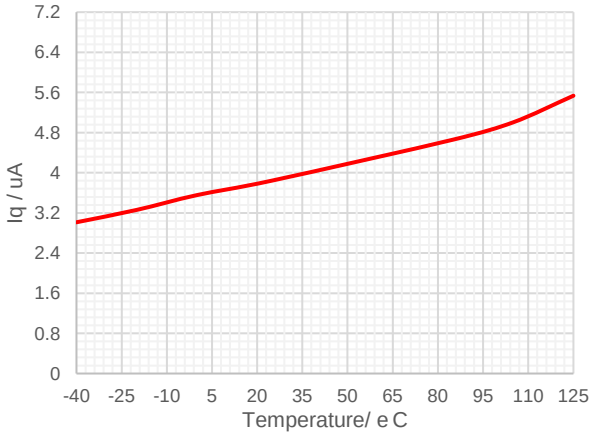
ELECTRICAL CHARACTERISTICS

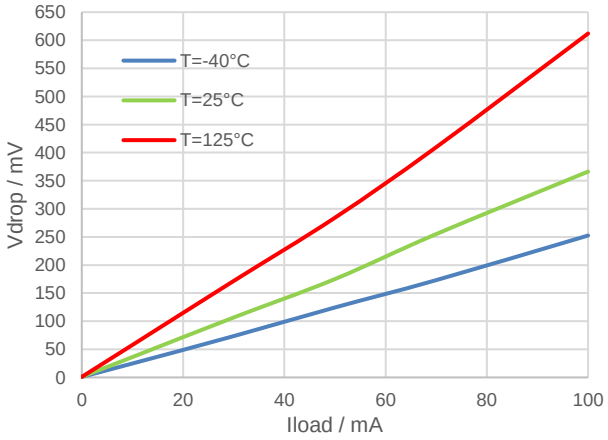
6<0%2	3$5$0(7(5	7(67&21',7,21	0,1 7<3 0$;	81,7
3RZHU 6XSSO\				
5HJXODWHG 2XWSXW 9ROWDJH DQG &XUUHQW				
(QDEOH DQG6RIWWXS				

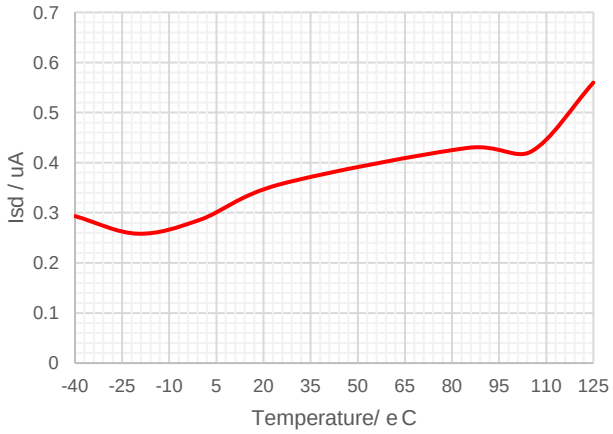
TYPICAL CHARACTERISTICS

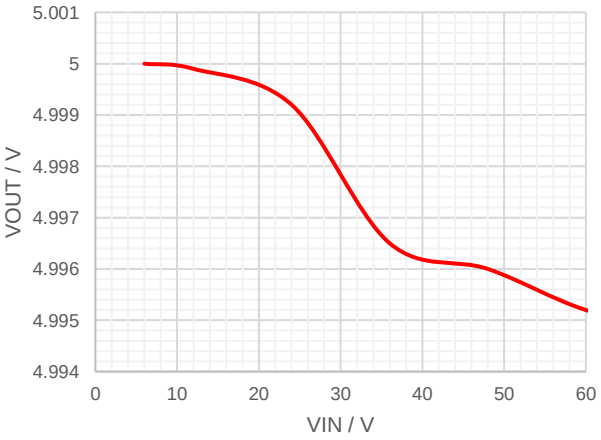




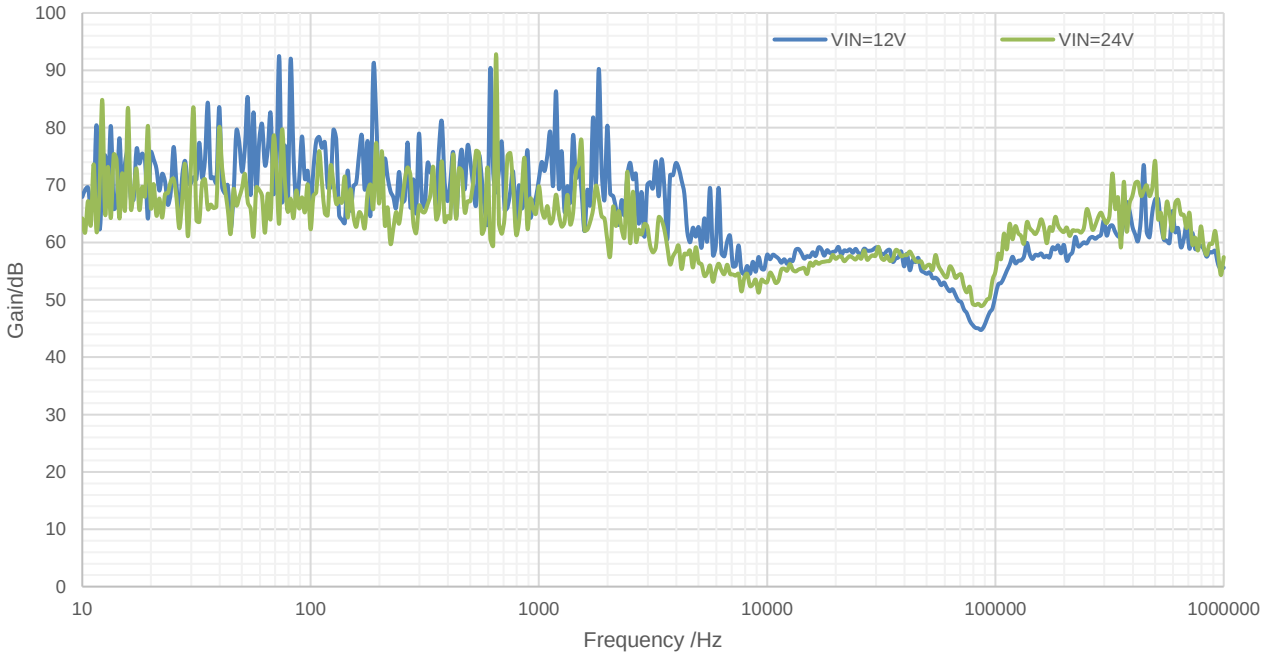


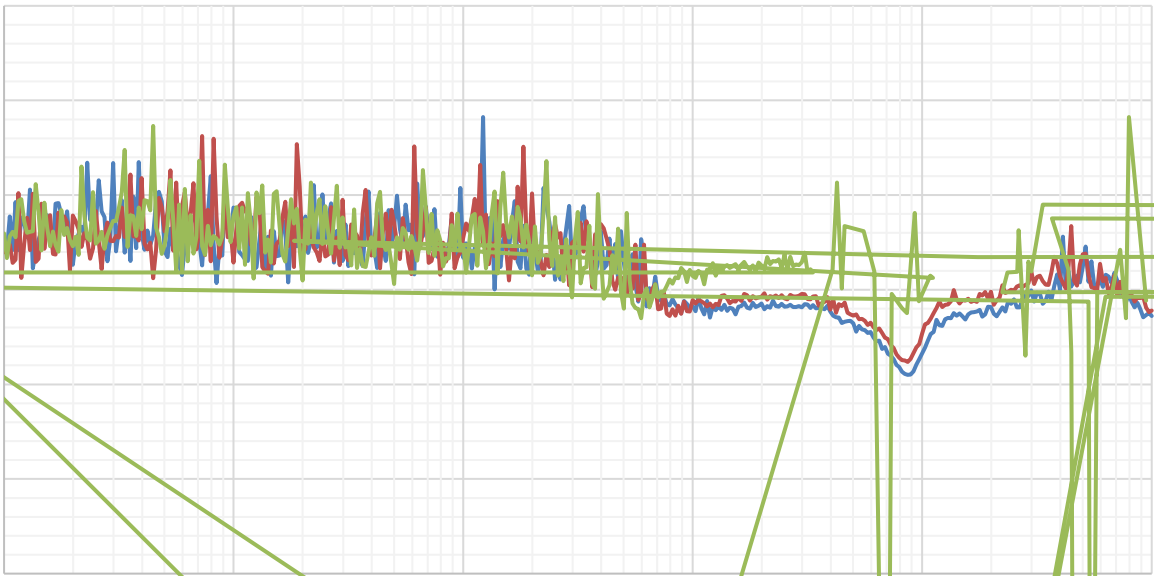




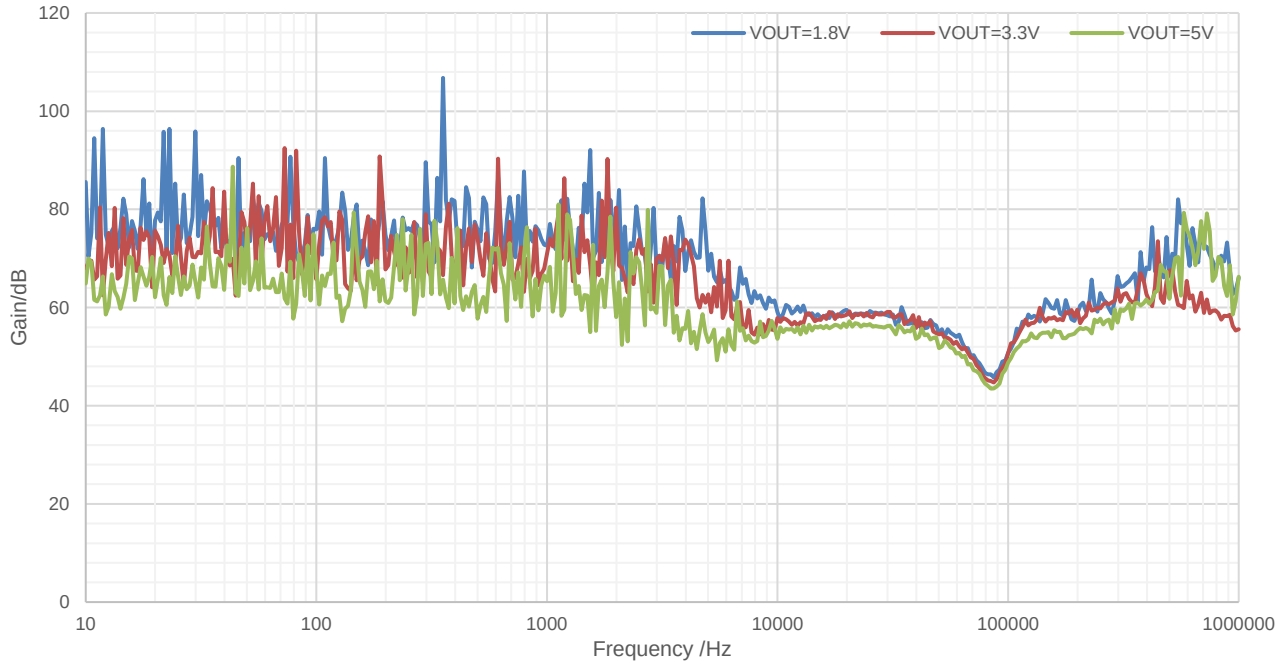


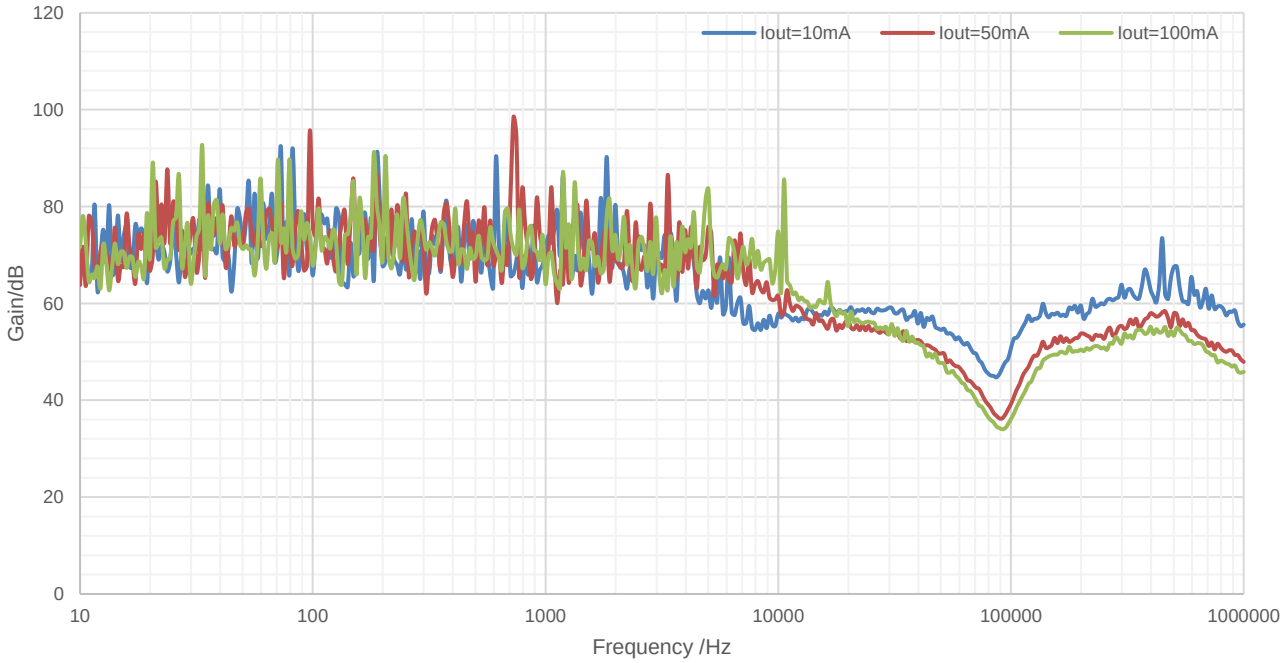
TYPICAL CHARACTERISTICS (continued)



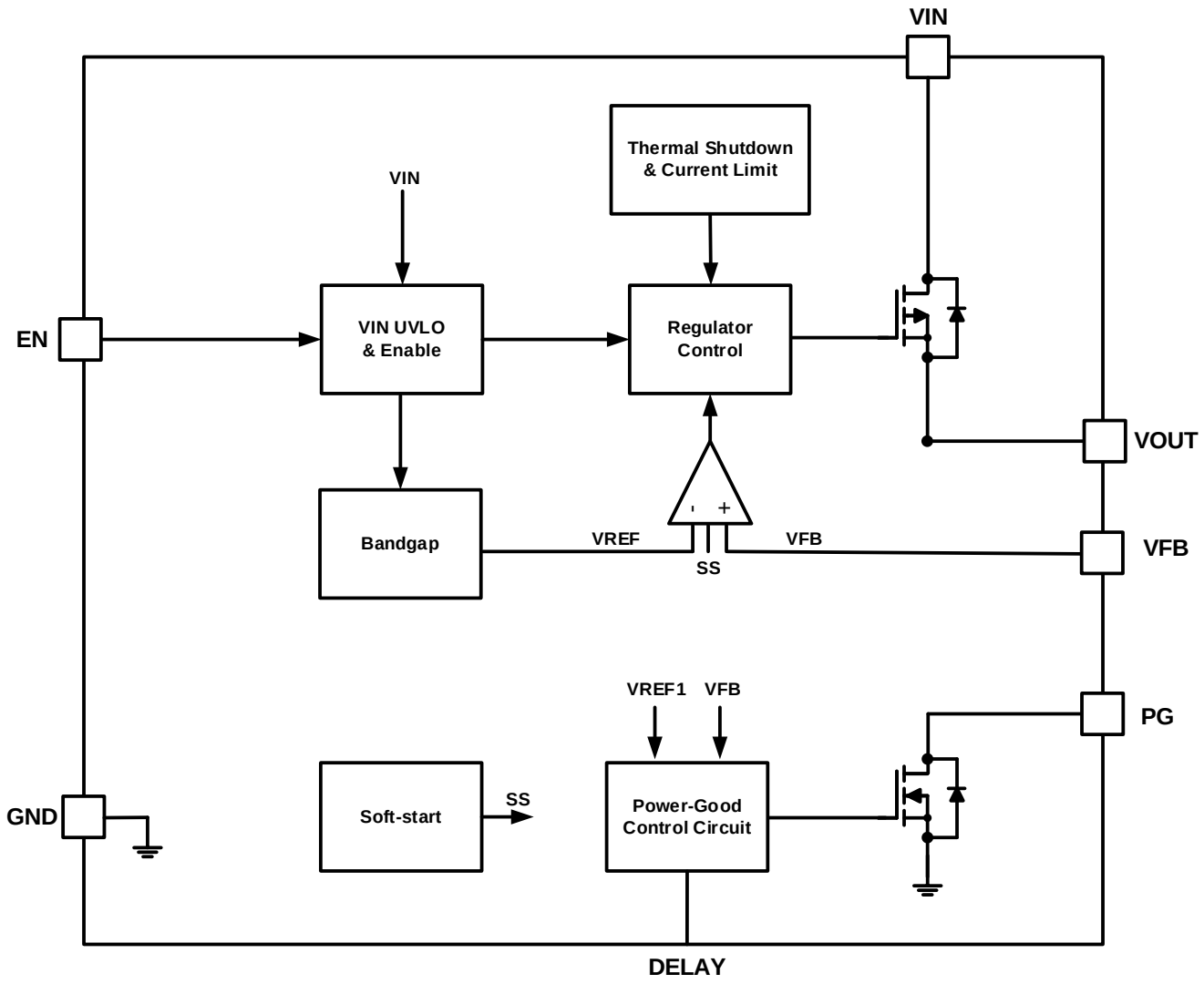


TYPICAL CHARACTERISTICS (continued)





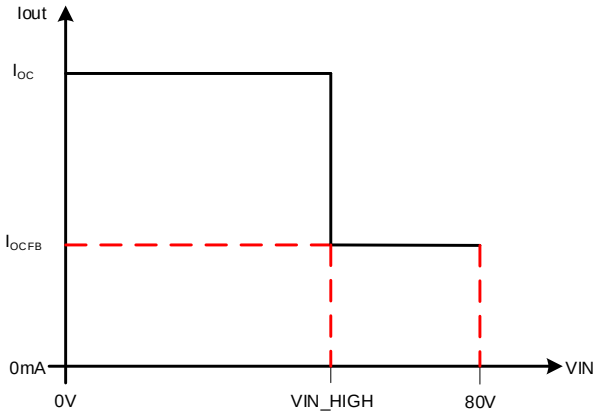
FUNCTIONAL BLOCK DIAGRAM



OPERATION

2YHUYLHZ

VIN_HIGH Control

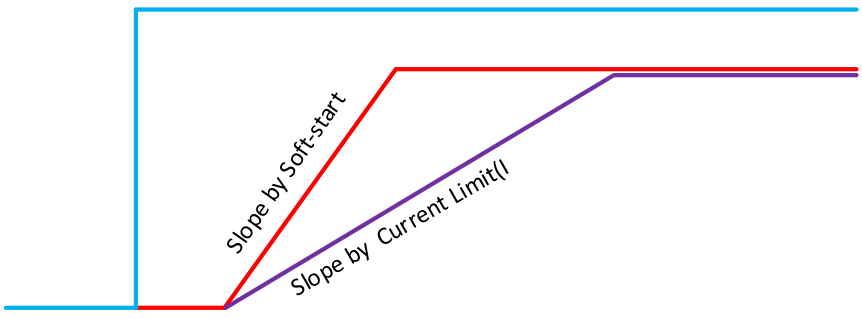


, Q W H U Q D O 6 R W 6 W D U W

VIN_HIGH

VIN_HIGH

$$Tstart = \max\{\frac{\times}{(\quad -\quad)}, \quad\}$$



3RZHU*RRG DQG 3*RRGHU'HOD\

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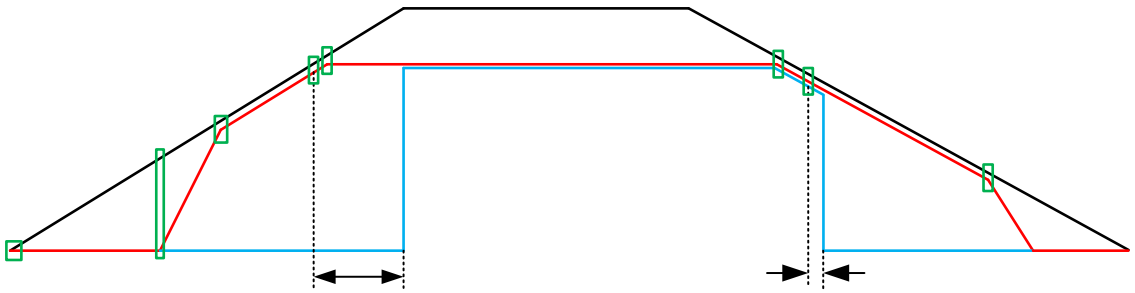
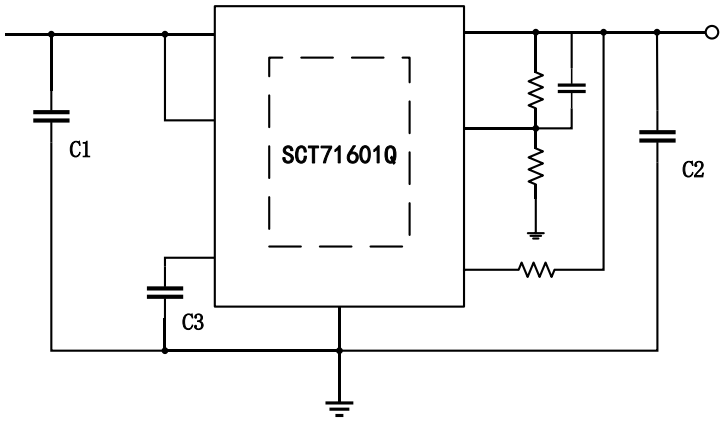
. When C_{DELAY} is used, the PG output is high-impedance when V_{OUT} exceeds V_{IT}, and V_{DELAY} exceeds V_{REF}. The power-good delay time can be calculated using: $t_{DELAY} = (C_{DELAY} \times V_{REF})/I_{DELAY}$. For example, when C_{DELAY}= 10 nF, the PG delay time is approximately 12 ms; that is, (10 nF × 1.2V) / 1 µA = 12 ms.



7 K H U P D O 6 K X W G R Z Q

APPLICATION INFORMATION

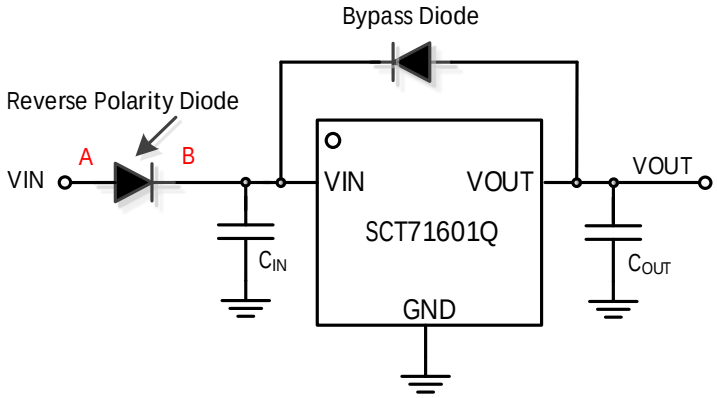
7\SLFDO DSSOLFDWLRQ



'HVLJQ 3DUDPHWHUV

'HVLJQ 3DUDPHWHUV	([DPSOH 9DOXH

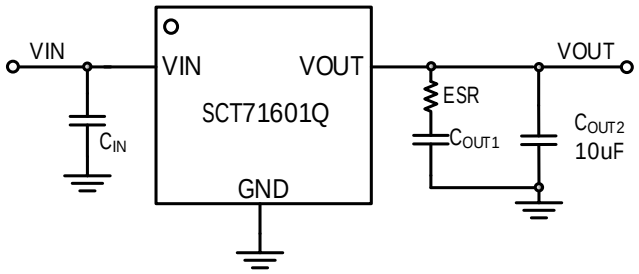
7\SLFDO DSSOLFDWLRQ



'HVLJQ 3DUDPHWHUV

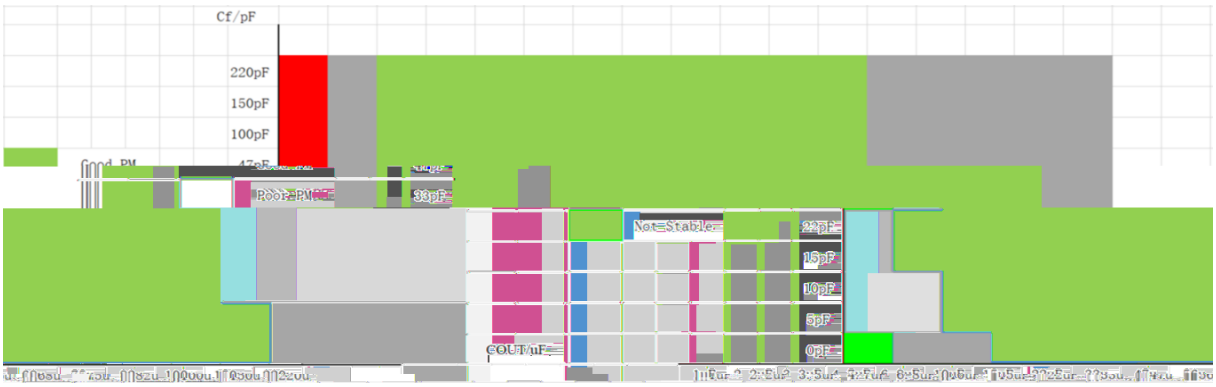
'HVLJQ 3DUDPHWHUV	([DPSOH 9DOXH

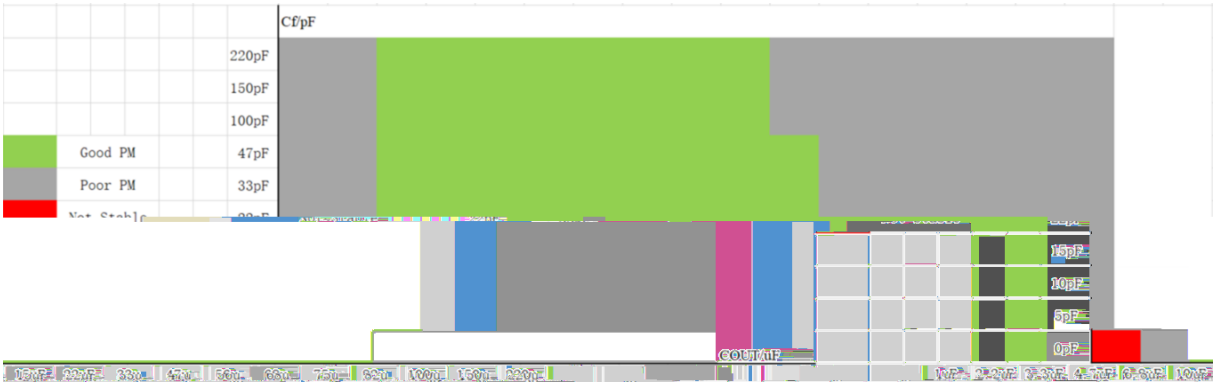
7\SLFDO DSSOLFDWLRQ



'HVLJQ 3DUDPHWHUV

'HVLJQ 3DUDPHWHUV	([DPSOH 9DOXH


Cf/pF
220pF
150pF
100pF
Poor PM
33pF
Not Stable
22pF
15pF
10pF
5pF
0pF
COUT/uF


Cf/pF
220pF
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Poor PM
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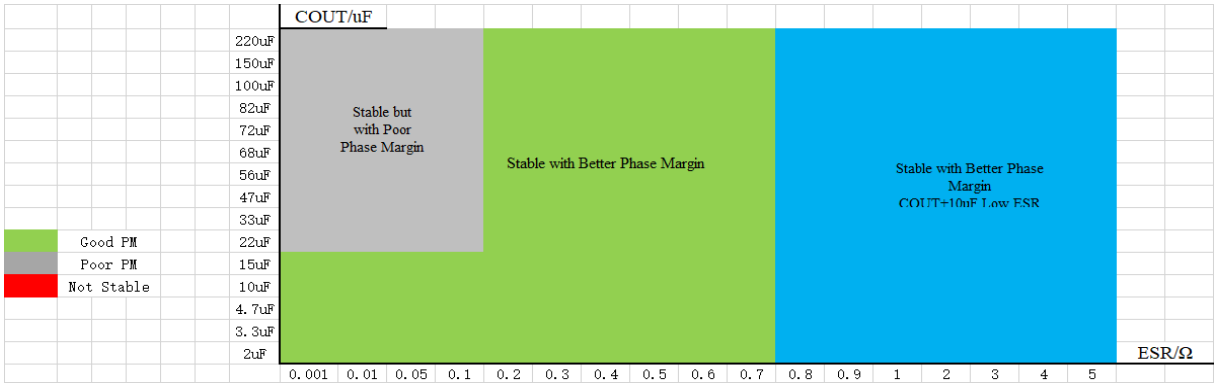
10pF
5pF
0pF
COUT/uF


COUT/uF
220uF
150uF
100uF
82uF
72uF
68uF
56uF
47uF
33uF
22uF
15uF
10uF
4.7uF
3.3uF
2uF
Good PM
Poor PM
Not Stable
Stable but with Poor Phase Margin
Stable with Better Phase Margin
Stable with Better Phase Margin COUT+10uF Low ESR
0.001
0.01
0.05
0.1
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0.6
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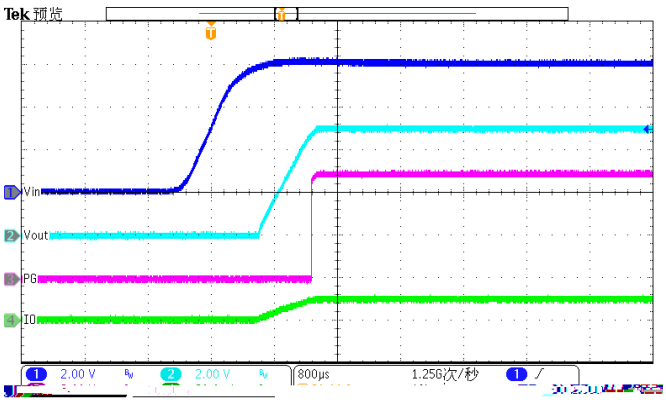
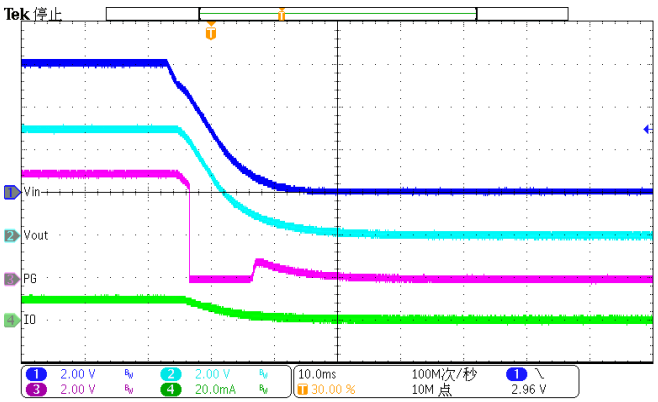
ESR/Ω

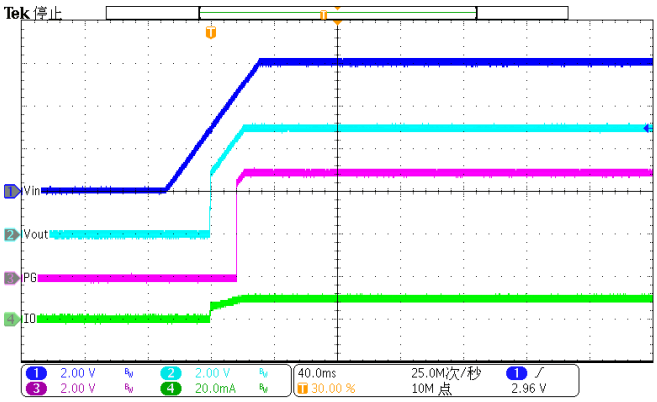
3RZHU 'LVVLSDWLRQ3RZHU IRUPDQFH

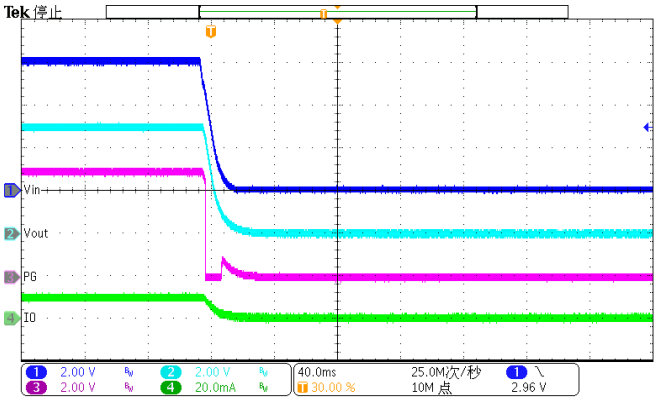
= (−) × + ×

$SSOLFDWLRQ :DYHIRUPV

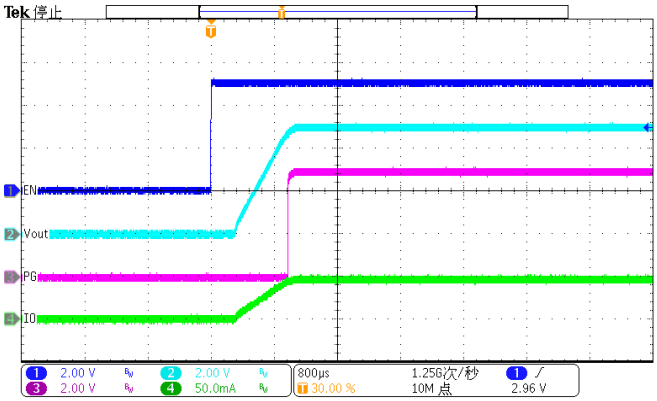


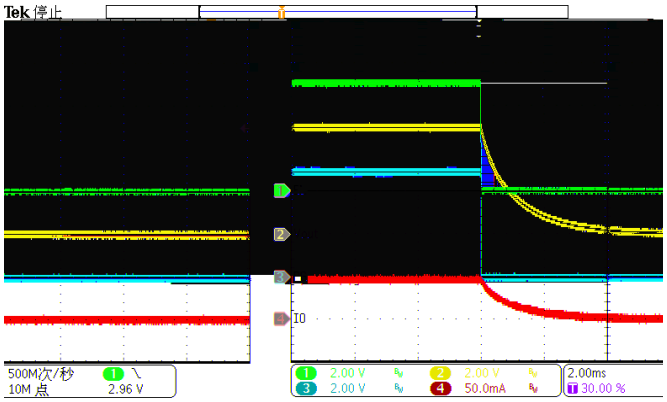


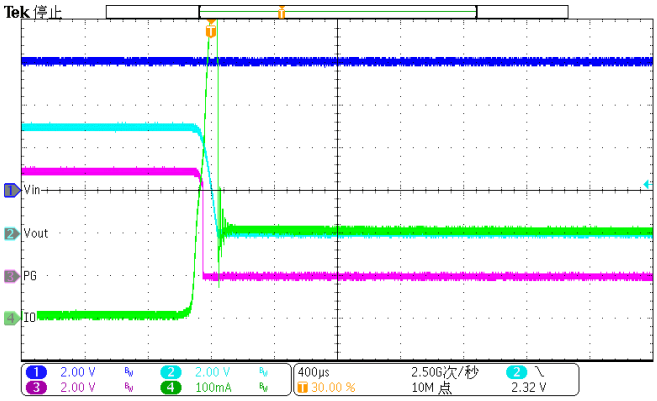


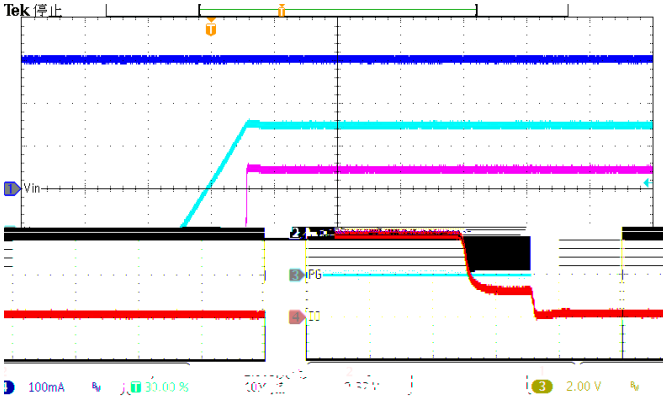


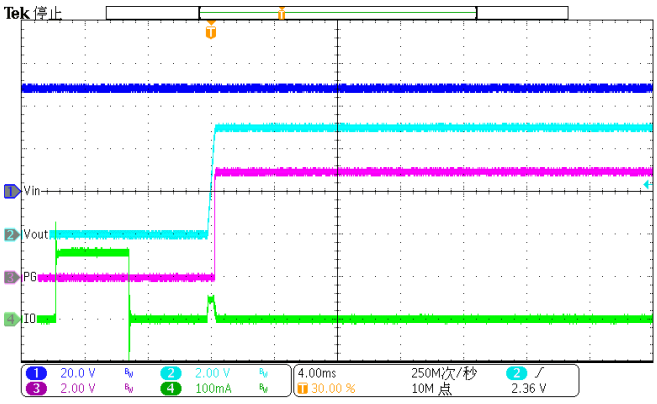
$SSOLFDWLRQ :DYHIRUPV &RQWLQXHG











/D\RX*WL GHOLQH

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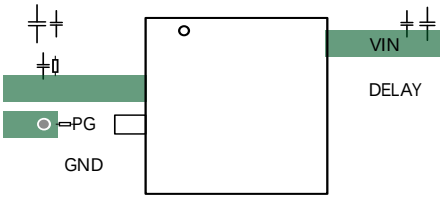

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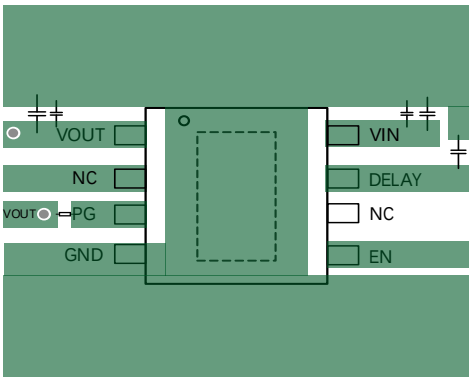

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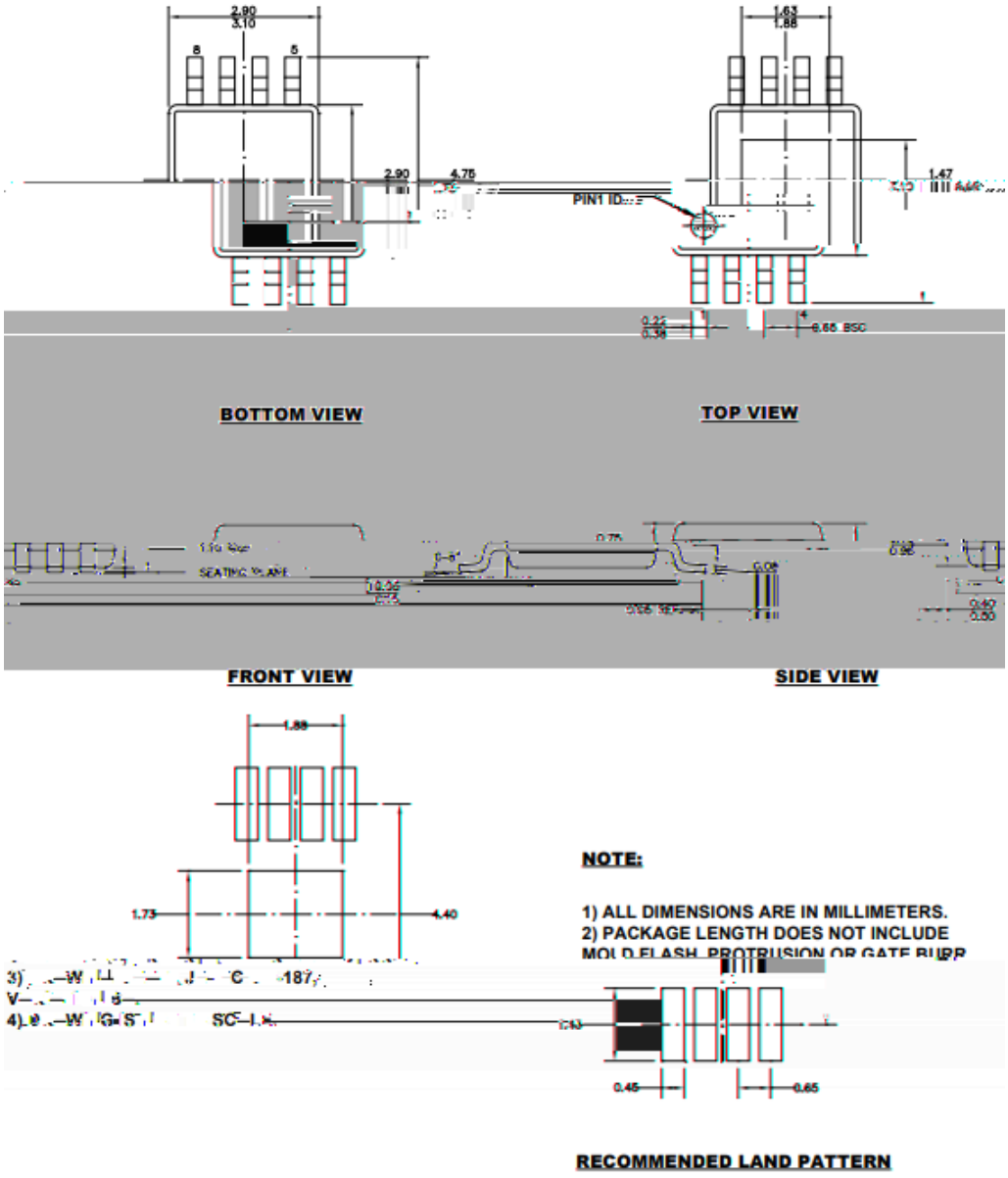
PACKAGE INFORMATION

PACKAGE OUTLINE DRAWING FOR MSOP8L-EP
POD-0050 Revision 0.0



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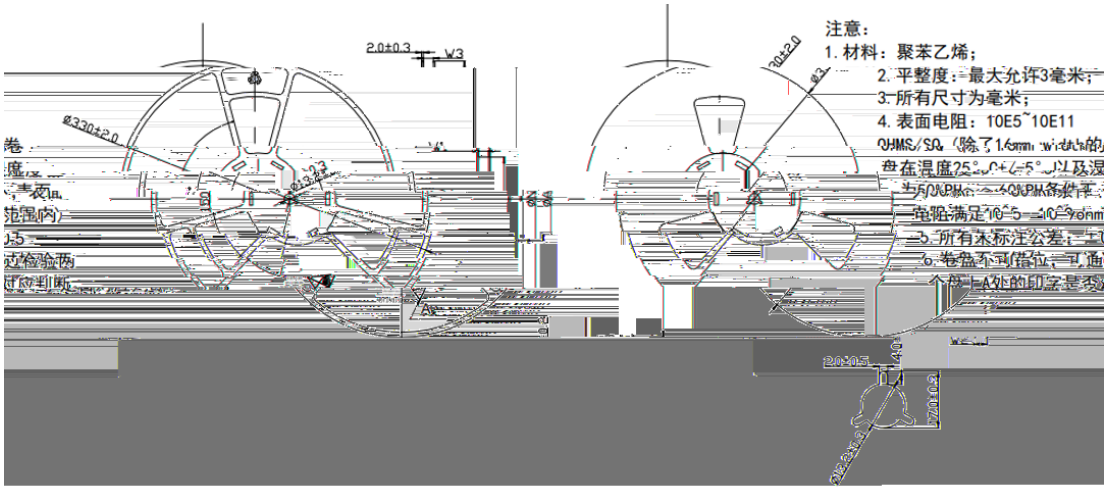
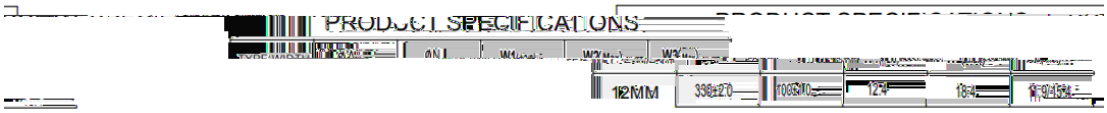
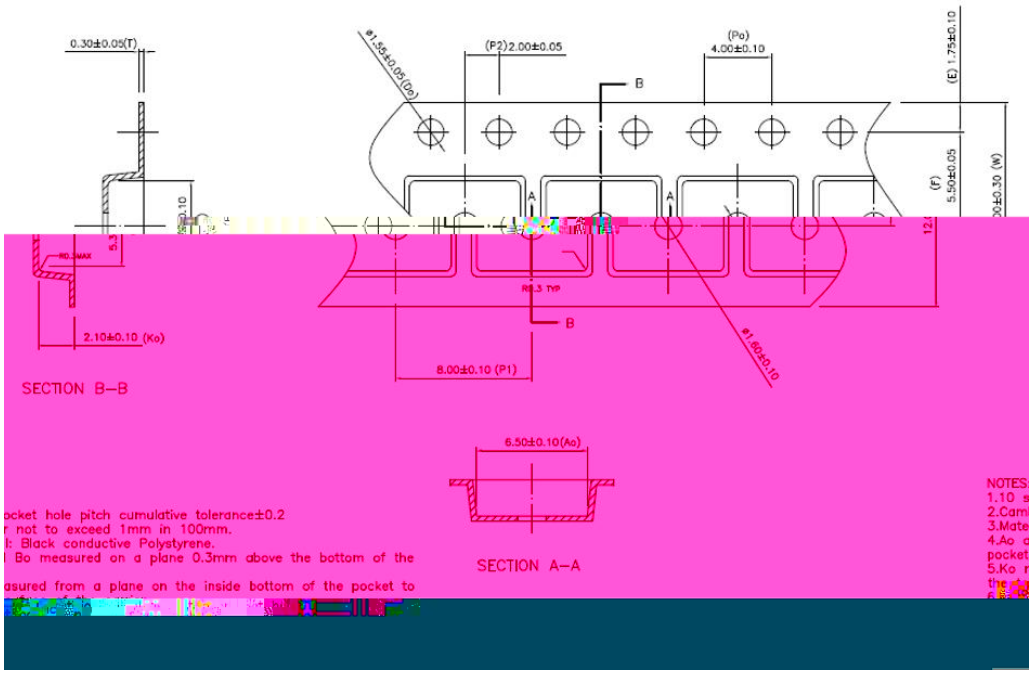
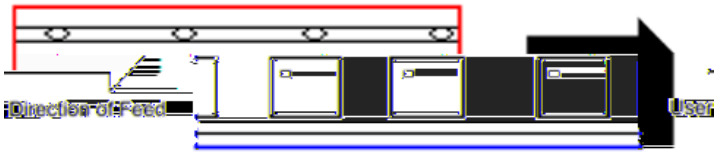
TAPE AND REEL INFORMATION









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