## REVISION HISTORY

01 6 2

4 4

## DEVICE ORDER INFORMATION

| JM M =G QD | K F BDB OTK | NO I M K F LOT | K F B H MFDB | KDN | K F B N MDKODJI | HNG |
|---|---|---|---|---|---|---|
| 5%6 ( & 4 | 6 4 | | | | ( %3 ( 0 . | |

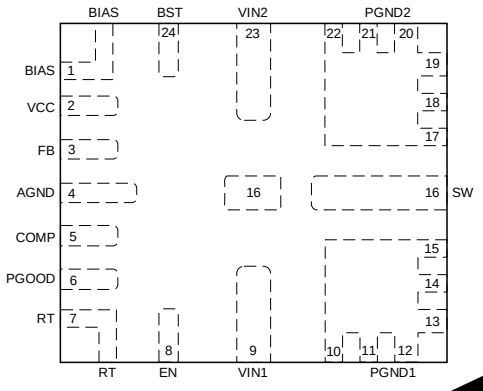
## ABSOLUTE MAXIMUM RATINGS

1

| N MDKODJI | HD | H S | PI DD |
|---|---|---|---|
| -0 -0<br>0<br>56<br>5<br>5<br>56 5 | | | |
| + 5 2) 1 1 &<br>%% ( 46 %1 / 2 | | | |
| 1 6,<br>5 656) | | | %<br>% |

(1) 5 / 4
4 ( %
(2) 6 -0
(3) 6
(4) 6 -%
%

## PIN CONFIGURATION




Ab ,)- (G A L A

N

6

, %

## PIN FUNCTIONS

| I H | I J) | KD API ODJI |
|---|---|---|
| + 5 | | + . &1 % %<br>( ( |
| %% | | + . &1 7 & (<br>%% |
| ( | | + 6<br>) 0& 6<br>( |
| ) 0& | | |
| %1 / 2 | | % |
| 2) 1 1 & | | 2 2) 1 1 & |

| | | |
|---|---|---|
| 46 | | 5 % * / * 6 2. . + |
| 0 | | 2 % +0 6 +0 ) 0& 0 |
| +0 | | + % 2) 0& . +0 |
| 2) 0& | | 2 / 1 5( 6 % . 2) 0& % +0 |
| 5 | | 4 % 5 |
| 2) 0& | | 2 / 1 5( 6 % . 2) 0& % +0 |
| +0 | | + % 2) 0& . +0 |
| 56 | | 2 / 1 5( 6 % ( 1 1 6 5 / 1 5( 6 5 |

## RECOMMENDED OPERATING CONDITIONS

1

| K M H O M | AD DDDJ I | HD | H S | PI DD |
|---|---|---|---|---|
| -0 | + | | | |
| 1 76 | 1 | | | |
| 6, | 1 | | | % |

## ESD RATINGS

| K M H O M | AD DDDJ I | KD | HD | H S | PI DD |
|---|---|---|---|---|---|
| 5& | * / * / | 5 56<br>1 | | | |
| | % & / %&/ | | | | |

## THERMAL INFORMATION

| K M H O M | OC MH GH OMD | A LAI (- G | PI DD |
|---|---|---|---|

4 , ,

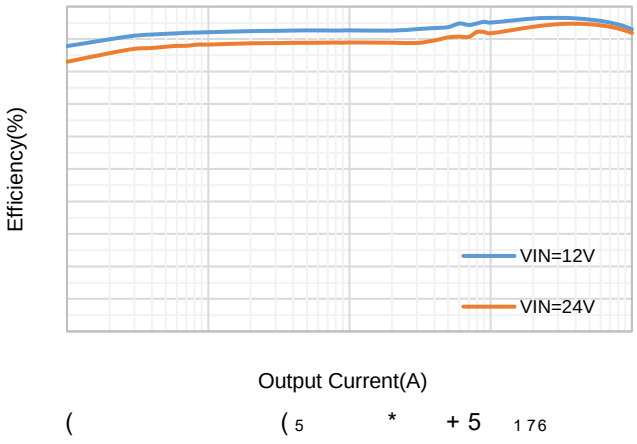
## ELECTRICAL CHARACTERISTICS

-0 6, % % %

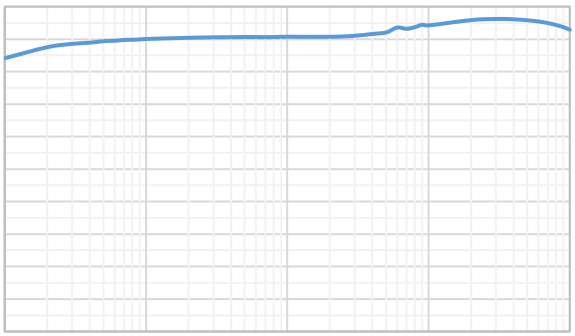
| NTH=JG | K M H O M | O NO JI DDDJI | HD OTK H S | PI DD |
|---|---|---|---|---|
| **K N** | | | | |
| -0 | 1 | | | |
| +5*&0 | 5 -0 | 0 ( | | |
| +5 +5 | 3 -0 | 0 ( +5 | | |
| +5 | 3 -0 | 0 ( | | |
| ++5 | 3 % +5 | ( 0 +5 | | |
| + / | -0 | -0 0 176 | | |
| + / +5 | -0 | -0 0 176 +5 | | |
| **Q G J =D N** | | | | |
| %% | %% %%/ | ( | | |
| | %% | ( | | |
| %% 7 .1 | %% 7 .1 6 | %% | | |
| | * | | | |
| +5 | +5 %% +5 | | | |
| +5 | +5 %% -0 | | | |
| **K HJNA O** | | | | |
| 4&510 * | * /15( 6 | | | |
| 4&510 . | . /15( 6 | | | |
| **Ma G** | | | | |
| 4 ( | 4 ( | 6 % | | |
| | | 6 % % | | |
| ) | | | | 5 |
| +%1/2 54% | | ( %1/2 | | |
| +%1/2 50- | | ( %1/2 | | |
| %1/2 * | %1/2 | | | |
| %1/2 . | %1/2 | | | |
| **G J K** | | | | |
| +-/ *5 | * /15( 6 | | | |
| +-/ .554% | . /15( 6 | | | |
| +41% | . | | | |
| * | * ( | | | |
| * | & * | | | |
| * | * | | | |
| +2 - 25/ | +2 - 25/ | | | |

| NTH=JG | K M H O M | O NO JI DDDJI | HDD OTK H S | PI DD |
|---|---|---|---|---|
| + | | | | |

## TYPICAL CHARACTERISTICS




( ( 5 * + 5 1 76



( ( 5 * 1 76

( ( 5 * 1 76

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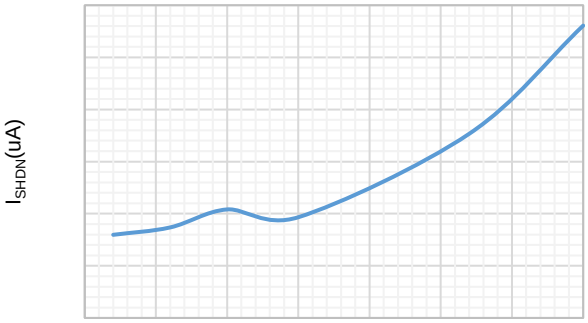
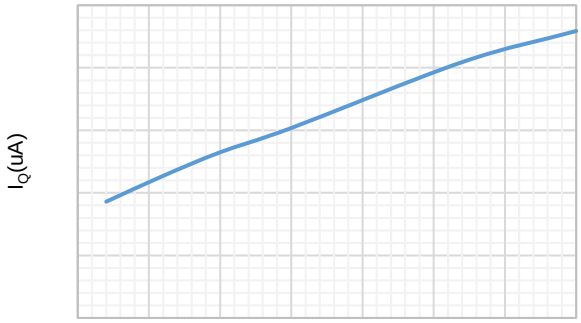
( . 4 1 76 +1 &

( . 4 +0 1 76

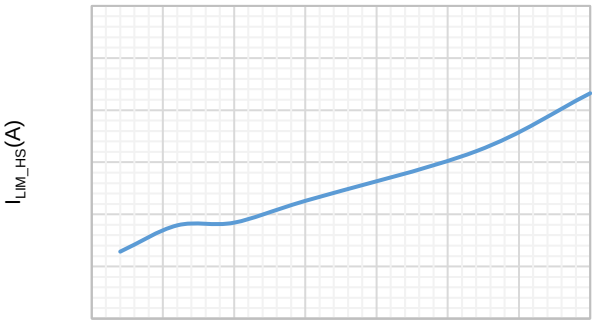
## TYPICAL CHARACTERISTICS



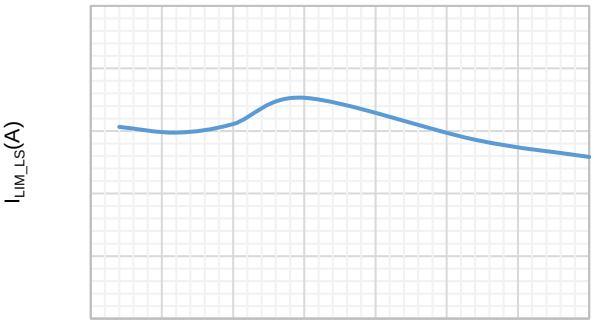

( 5 % 5 6



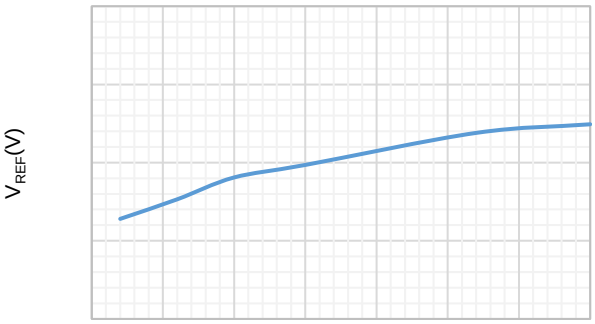

( 3 % 5 6



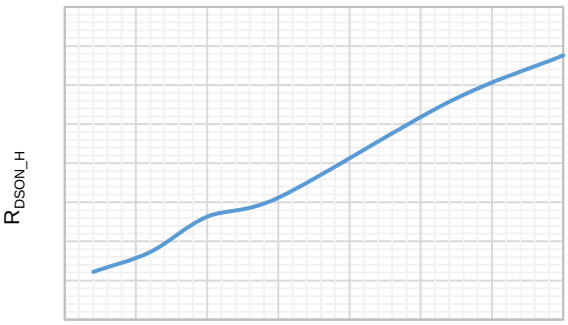

( * 5 % . 5 6




( . 5 % . 5 6

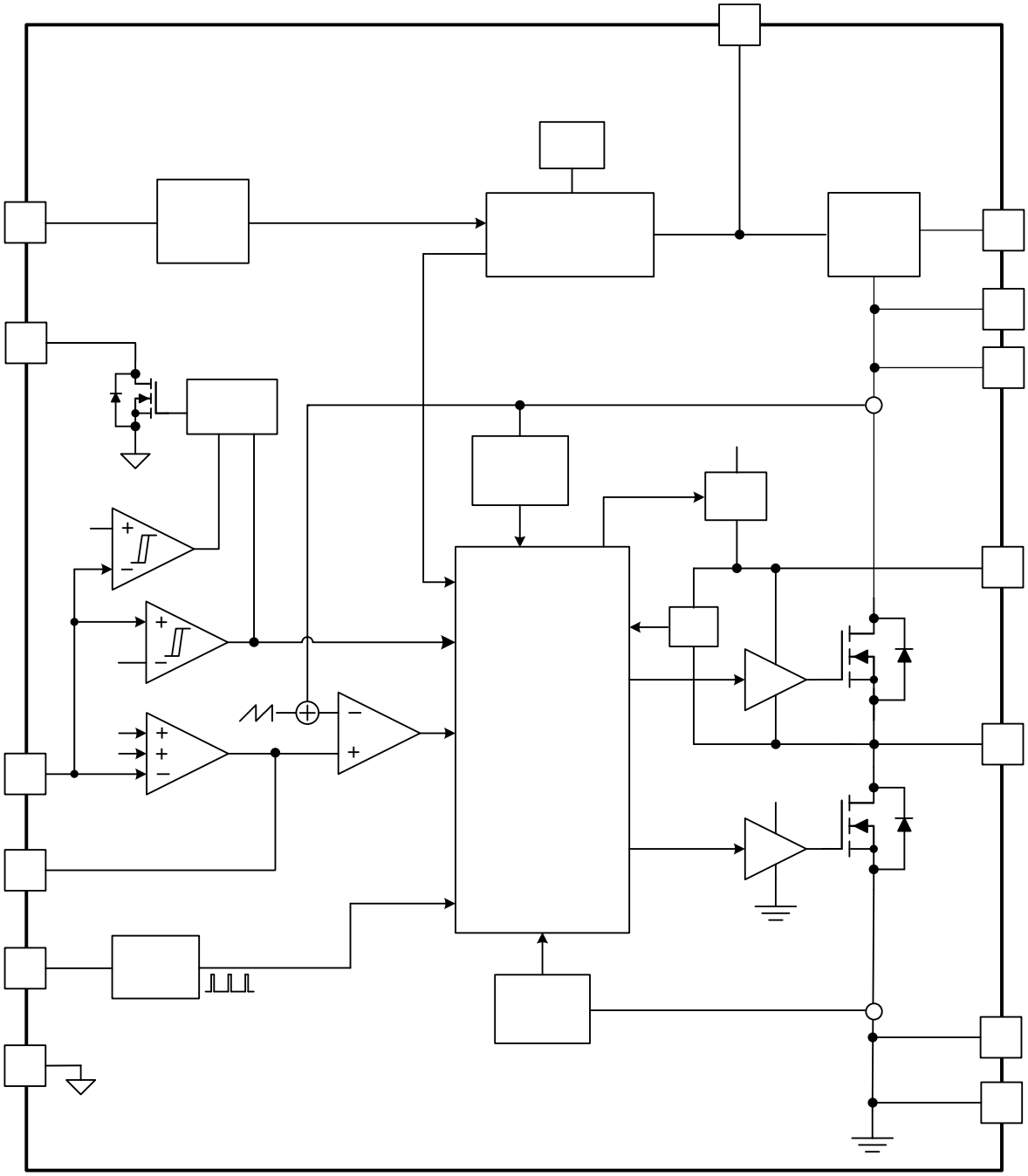



( 4 5 6




( * 5 4&51 0 5 6

## FUNCTIONAL BLOCK DIAGRAM



Ab , ) A = b

## FUNCTION

**J**

6 5%6 / + 4
4 / 15( 6 +

6 * / *

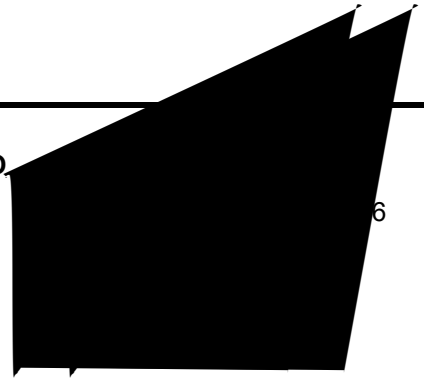
6 5%6
6 6
2 / 25/
+ 5

6 0
7 .1 % 0
+0

6 5%6 ( 5 5 (55
(55 / +

6 5%6

P Q b G O



5 6 5%6 -0

0 (

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6 0 6 -0

( 7 .1 4 4 ( -0

0 6

6 7 .1

1 0 -0

1 ( ( -0

**A N N**

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+ 5%6

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6 6
5%6

6 . &1
6 25/
6
6

**Q G J Q PQGJ =D N**

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6 176 +0 +
+ 5 . &1 + 5 + + 5
21 4 ) 1 1 & +0 +0 . &1 6
%% 7 . 1

**= Q b M b =NO PQGJ**

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/ 1 5( 6 / 1 5( 6

**H J O A**

5%6

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5%6 / 1 5( 6 / 1 5( 6
&
5 / 1 5( 6
% 1 6 %1 6

**J G C H**

6 / 1 5( 6 3 / 1 5( 6 3 6 5%6
/ 1 5( 6
/ 1 5( 6

6
( 6
%1 / 2 (
1 ( (
+ 55 %1 / 2
55 (

+ ( . &1
6

**J b K**

6 5%6 1 2 1 2
6 1 2
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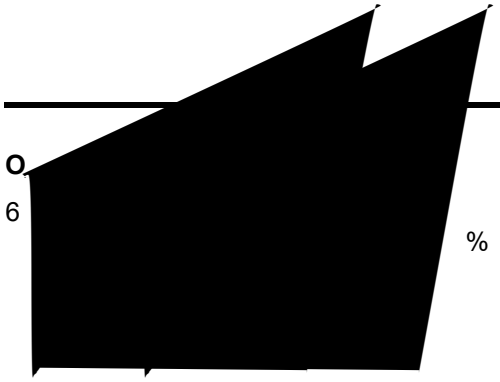
/ 1 5( 6 (
/ 1 5( 6

**K B**

6 2) 1 1 & % 176
2 2) 1 1 &
1 ( 2) 1 1 &
6 2) 1 1 & (
2) 1 1 & 7 . 1
0 1
2) 1 1 &



O.

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**J Q b**

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4

| QJPO | M0 | M1 |
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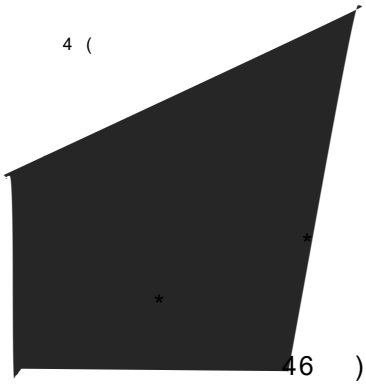

**N**

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| A | M MANR |
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5

**P Q b G (J**

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7 . 1 7 .1 6 7 .1

(

7 4 4

10 7 .1

1(( 7 .1

0 0 * 56

**D N**

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4/5 &% &%4 .
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+22
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5
1 76
+0

5
7

. / +0

1 76
+0
+176 &%
. +4 +22 +176

6
4/5
6 +2 - +4/5

+2 -
+176 &%
+22
+4/5 4/5

+
6
+2 -

5%6 6
6

**D N**

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**= N**

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**O . 5O Q**

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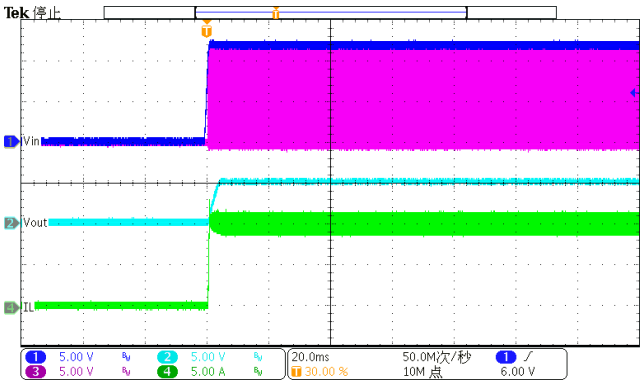
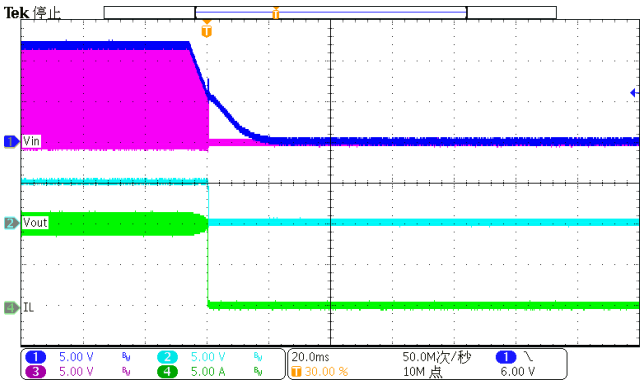
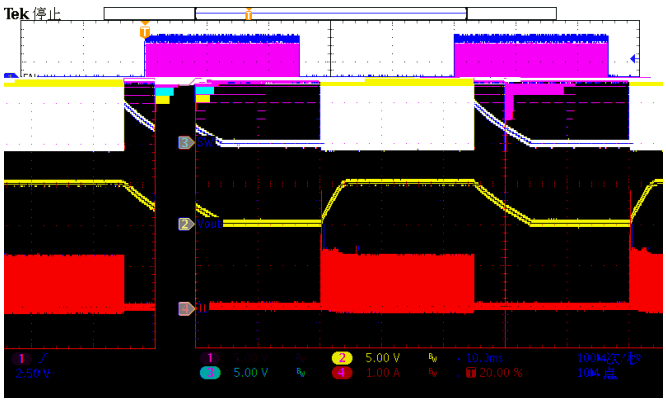


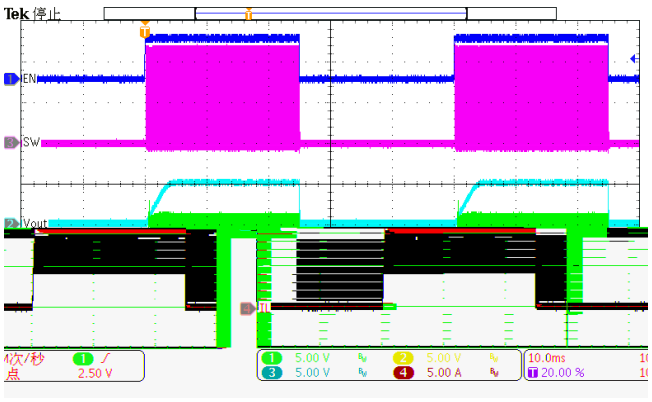

( 2 +1 &



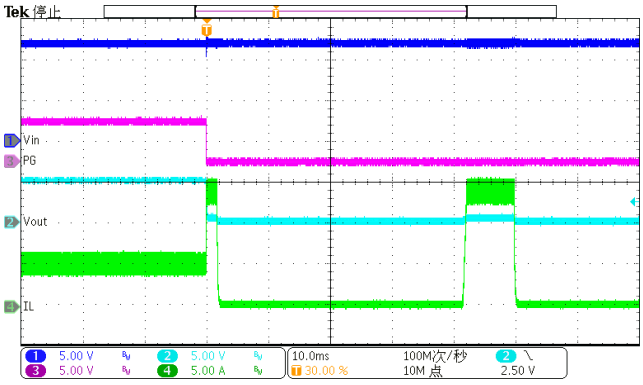

( 2 +1 &



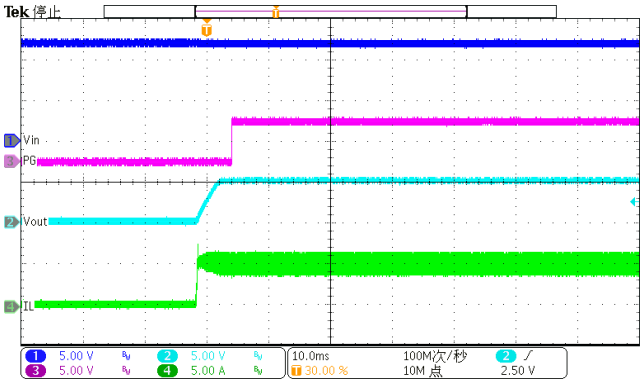

( 0 +1 &




( 0 +1 &

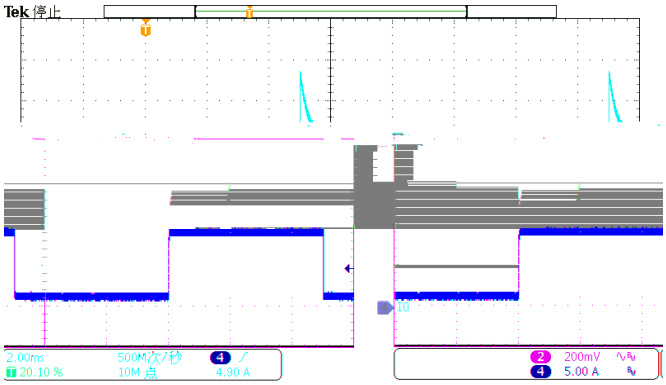



( 1 % 2

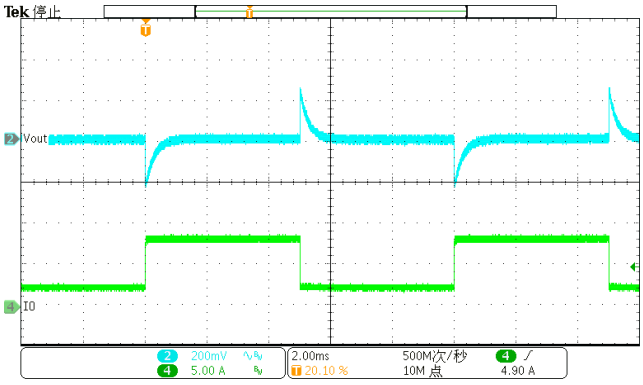



( 1 % 4

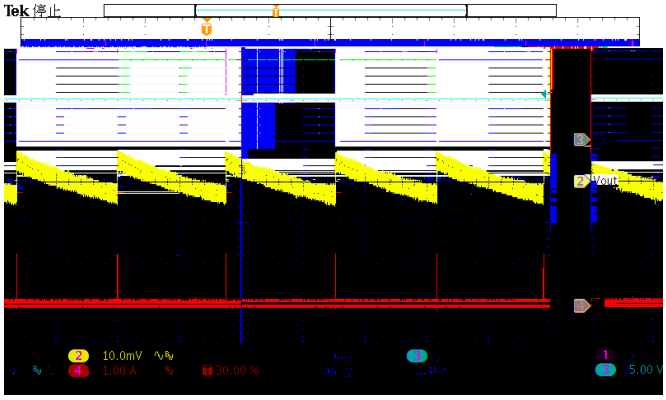
R a



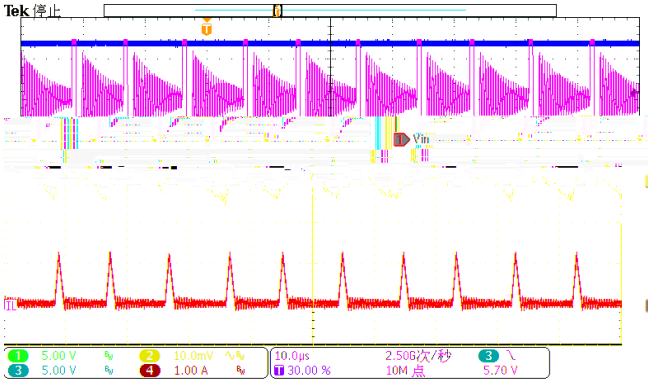

( . 6




( . 6




( 1 4 +1 &

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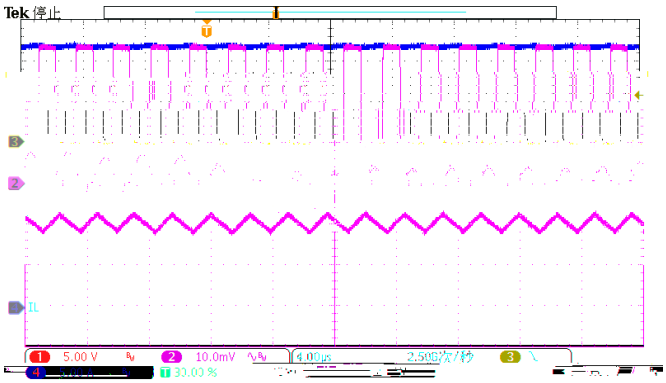
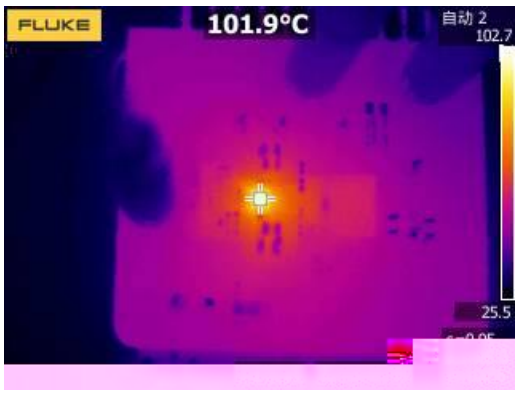



( 1 4 +1 &



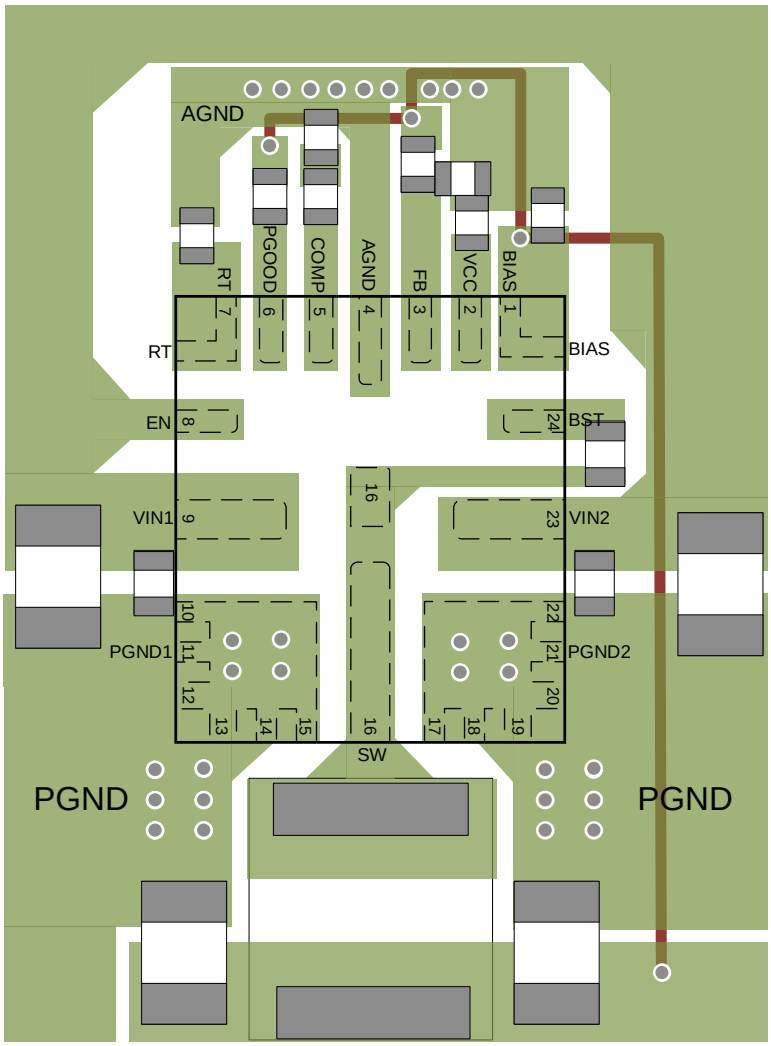

( 6 +0 1 76

**G B**

2 2% 5%6 6

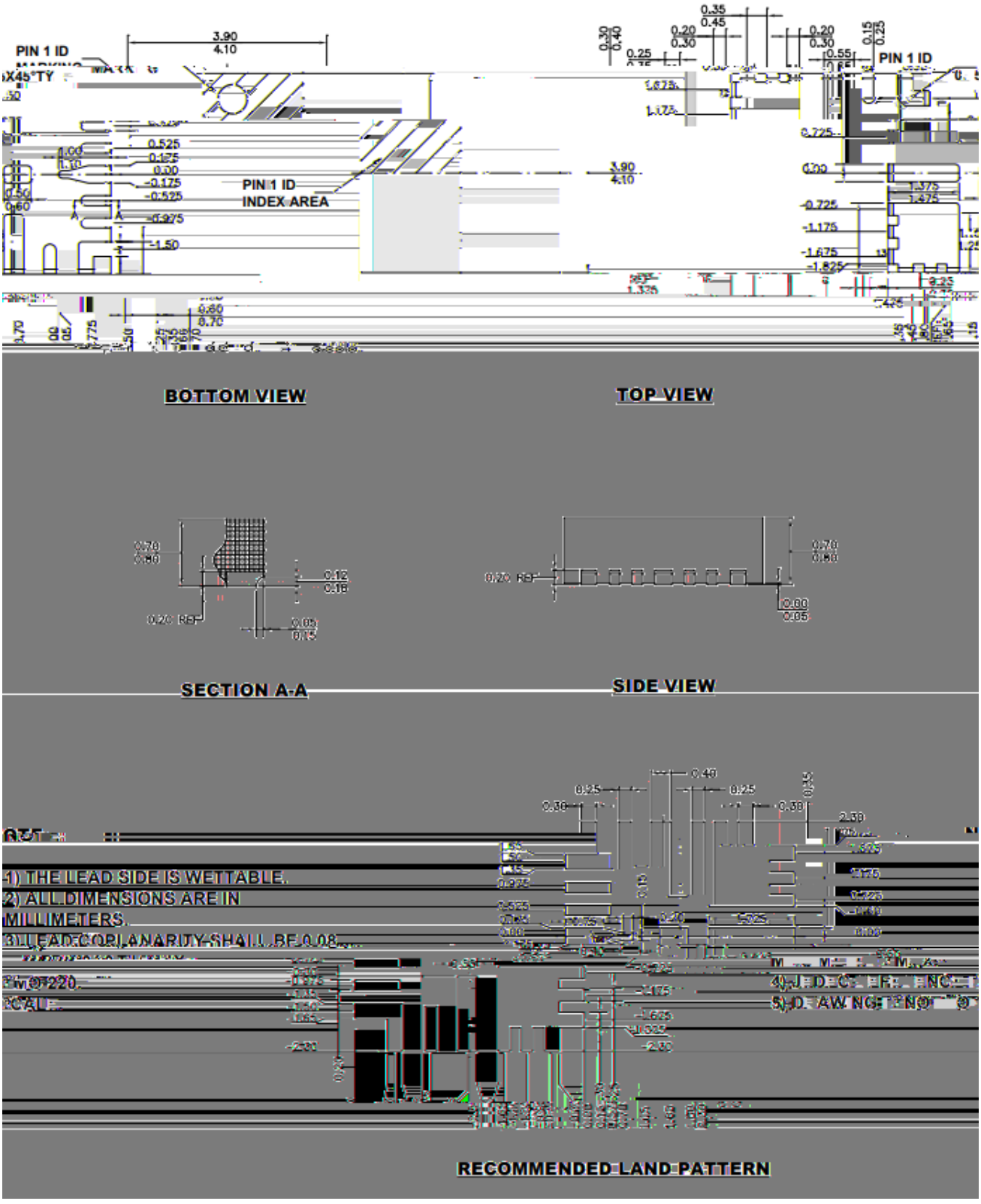
(

1. 2
   6
   2% 5
2. 2 54 -0 2) 0&
3. 1 5 6 2%
4. 6 46 46 -%
5. 7 .1 46
   ) 0&
6. (

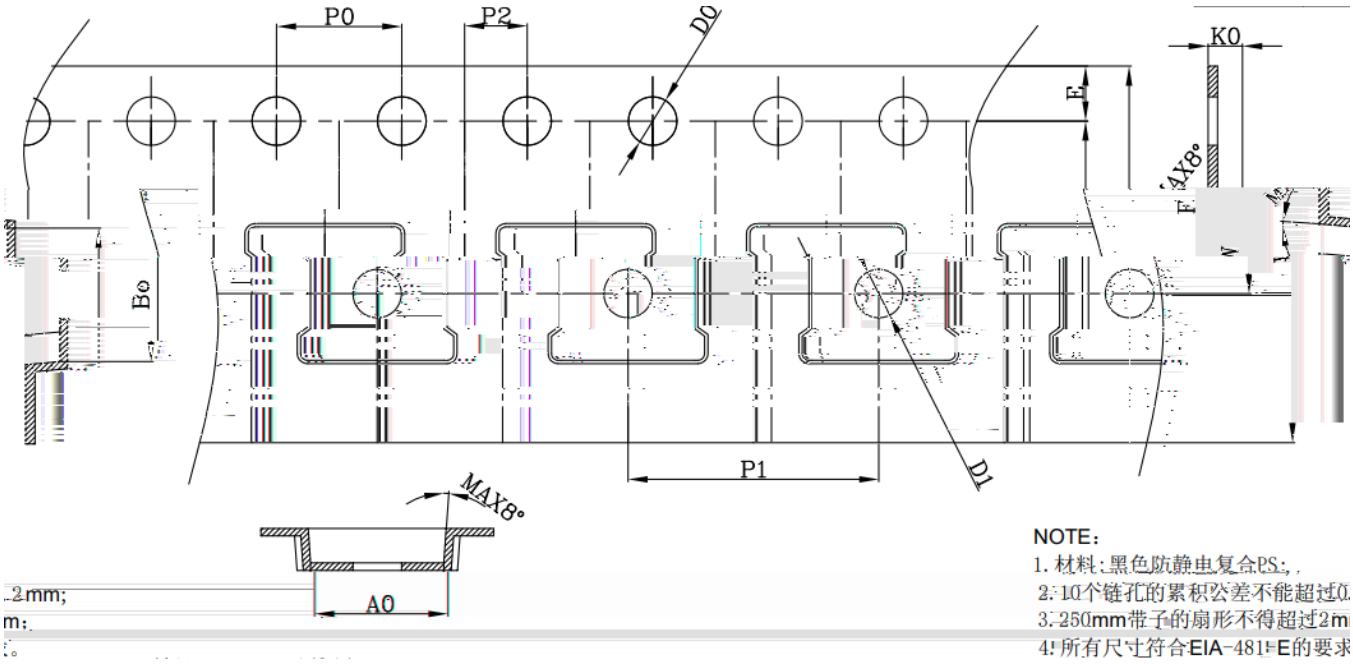


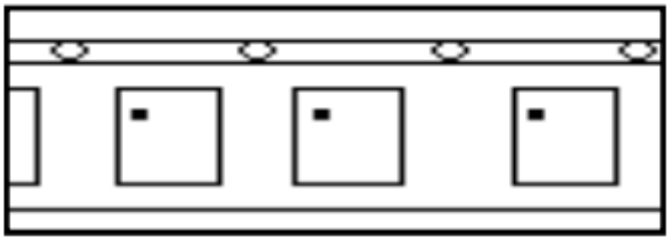

( 2% . 5 /

## PACKAGE INFORMATION



TAPE AND REEL INFORMATION




| SYMBOL | A0 | B0 | K0 | P0 | P1 | P2 |
|---|---|---|---|---|---|---|
| SPEC | 4.30±0.10 | 4.30±0.10 | 1.10±0.10 | 4.00±0.10 | 8.00±0.10 | 2.00±0.05 |
| SYMBOL | T | E | F | D0 | D1 | W |
| SPEC | 0.30±0.05 | 1.75±0.10 | 5.50±0.05 | 1.55±0.05 | 1.55±0.10 | 12.00±0.30 |