1 L2

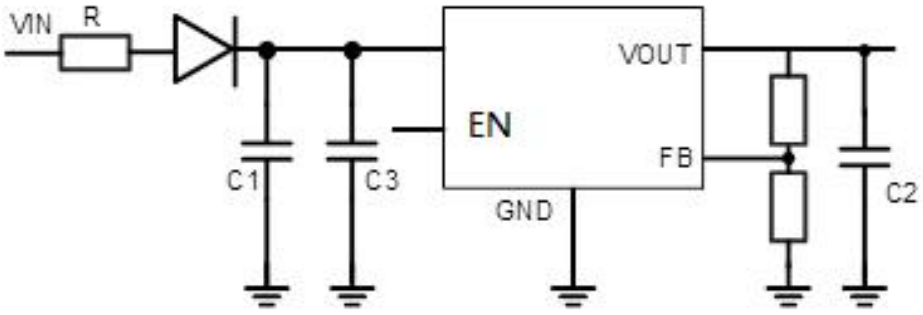
BST6010L2

80mA DFN10L

MCU BST6010L2

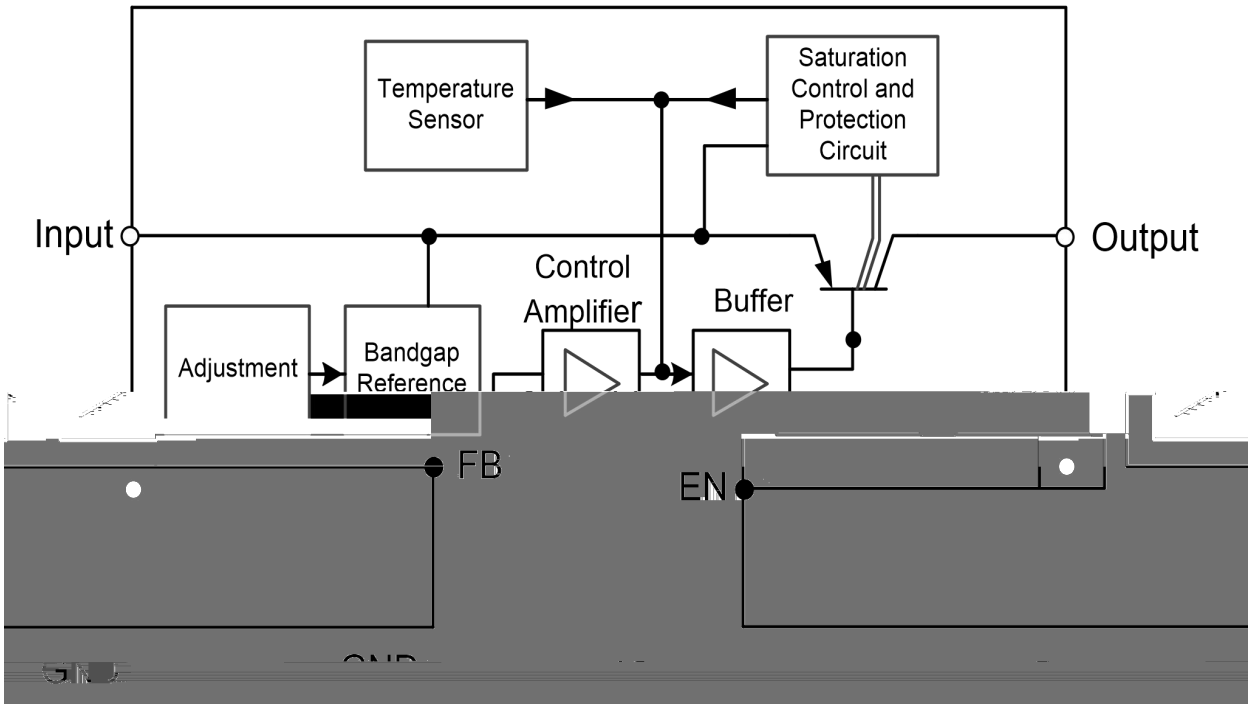
5.0V<V_{IN}<60V 1% V_{OUT}

- 5V 60V
- ≤ ±1%
- 80mA
- 30μA
  0.9uA
- 1μA
- AEC-Q100
- RoHs
- BMS
- /

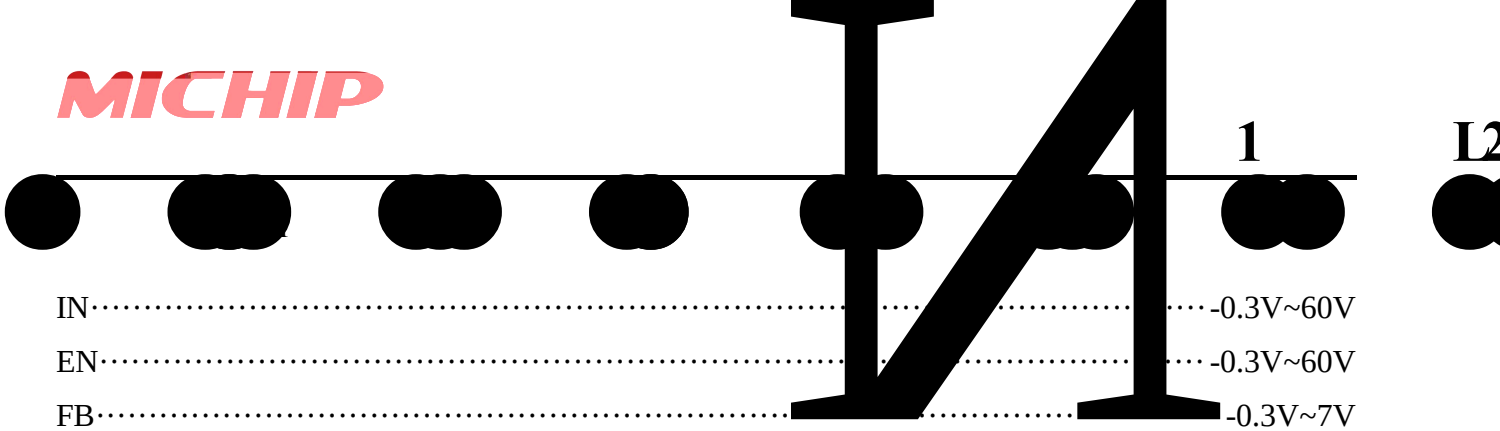


1 BST6010L2

MOS



3 BST6010L2



IN ..... -0.3V~60V

EN ..... -0.3V~60V

FB ..... -0.3V~7V

OUT ..... 1.25V~45V

[2]

θ_{JA} ..... 100 /W

..... -40 ~150

10s 260

..... -40 ~150

ESD[3]

V_{ESD_HBM} ..... -2000V~+2000V

V_{ESD_CDM} ..... -300 "..

V_{IN} = 13.5V T_A = 25

	V_{IN}		5	13.5	60	V
	V_{OUT}	5V<V_{IN} <60V 1mA< I_{OUT} <150mA	FB=1.25V			V
	ΔV_{LNR}	6V<V_{IN} <42V I_{OUT} = 1mA		1	20	mV
	ΔV_{LDR}	1mA< I_{OUT} <100mA		10	30	mV
	V_{dr}	I_{OUT} = 10mA		25	100	mV
		I_{OUT} =50mA		200	400	mV
		I_{OUT} = 100mA		300	500	mV
	I_Q			30	50	μA
	I_{SHDN}	V_{EN} = 0V V_{IN} = 24V		0.9	2	μA
	I_Q	V_{IN} = V_{OUT} + 0.6V	0		300	mA
	I_{LIM}	V_{IN} = 6V V_{OUT} = 0.9*$V_{OUT(normal)}$	200	300	400	mA
	PSRR	f = 100Hz Vr=0.5V_{pp}		70		dB
	V_{UVLO}	V_{IN}		2.88		V
	V_{UVLO_HYS}			0.1		V
	V_{EN_H}	5V < V_{IN} < 60V 1mA < I_{OUT} < 150mA		1.1		V
	V_{EN_HYS}			0.3		V

[1]

[2]θ_{JA} PCB T_A = 25

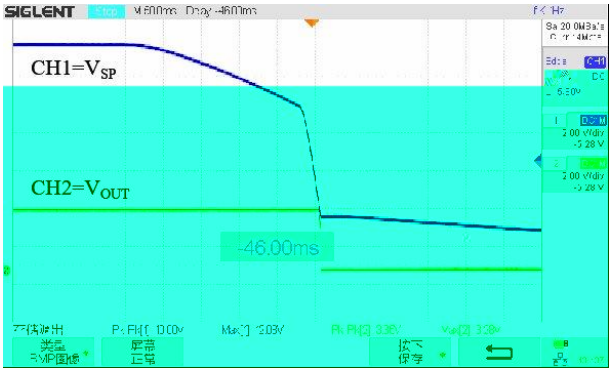
[3]ESD-HBM JESD22-A114 ESD-CDM EIA-JEDEC JESD22-C101

[4]

T_A=25

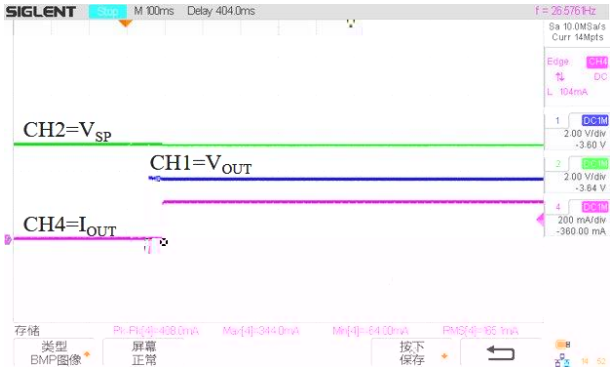
V_{IN}=12V V_{OUT}=3.3V I_{OUT}=100mA

V_{IN}=12V V_{OUT}=3.3V I_{OUT}=100mA



EN

V_{IN}=5V V_{OUT}=3.3V I_{OUT}=200mA

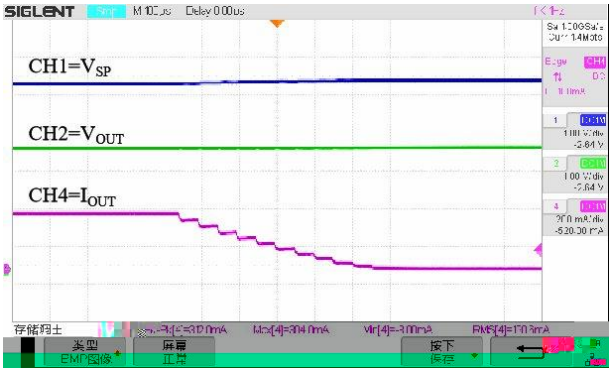


EN

V_{IN}=5V V_{OUT}=3.3V I_{OUT}=200mA

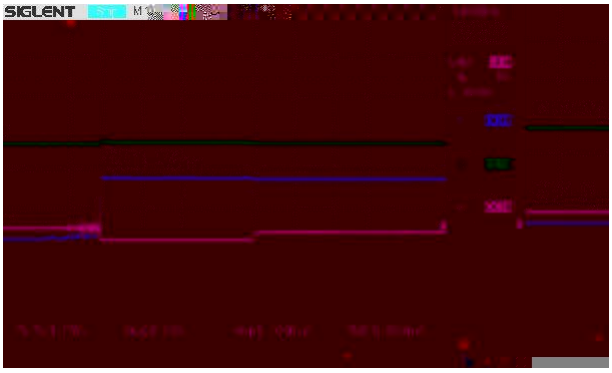
V_{IN}=5V V_{OUT}=3.3V I_{OUT}=0mA~300mA

V_{IN}=5V V_{OUT}=3.3V I_{OUT}=300mA~0mA



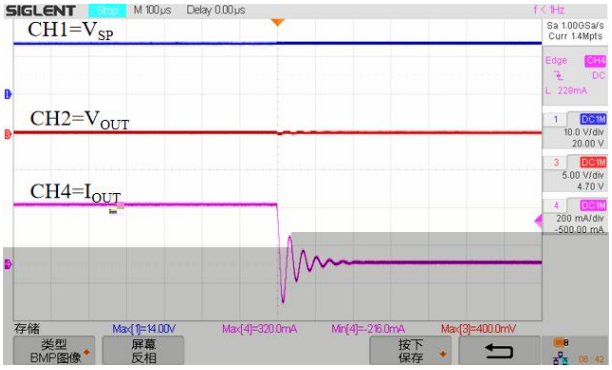
V_{IN}=5V V_{OUT}=3.3V I_{OUT}=0.2A~

V_{IN}=5V V_{OUT}=3.3V I_{OUT}= ~0.2A



V_{IN}=13.5V V_{OUT}=3.3V I_{OUT}=300mA

V_{IN}=13.5V V_{OUT}=3.3V I_{OUT}=300mA



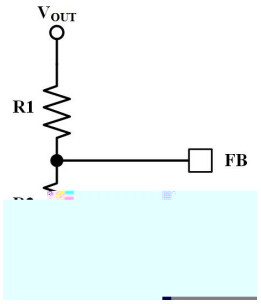
V_{IN} V_{SP}

1 2

BST6010L2 1.25V

5.0V<V_{IN} <60V BST6010L2 1%

$$V_{OUT} = 1.25 \frac{1 + 2}{2}$$



I N C

100nF

C_1 1R

470uF C_3

C

BST6010L2 2.2uF ESR 4R

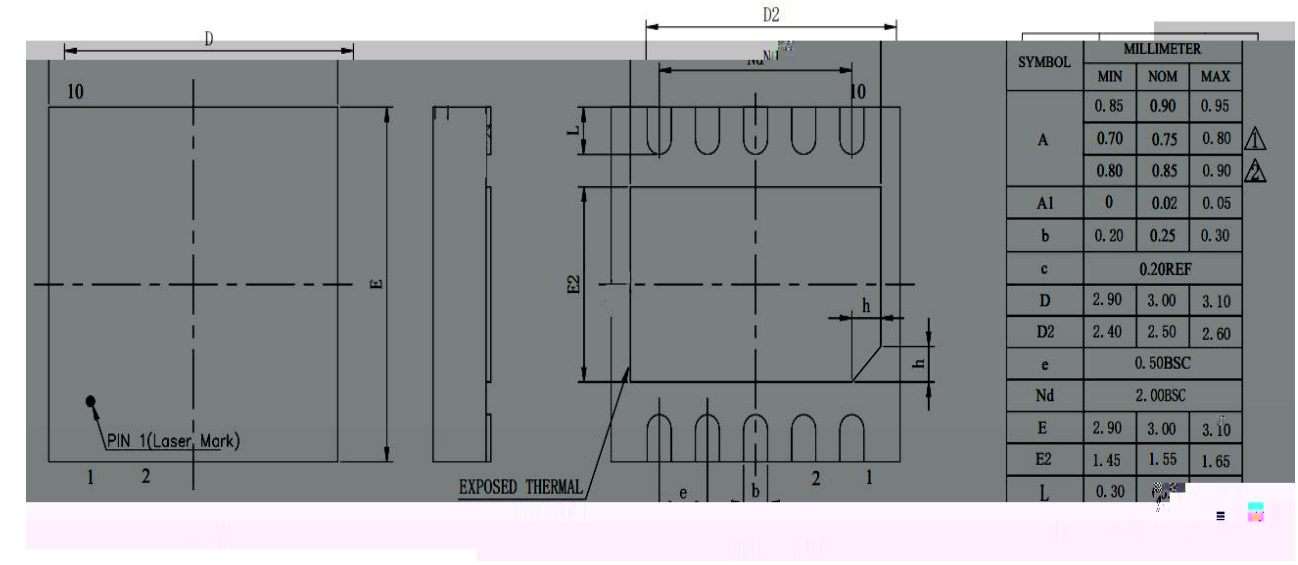
,

BST6010L2 300mA

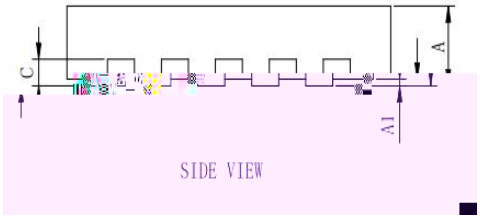
$P_D = (V_{IN}-V_{OUT}) \times I_{OUT}+V_{IN} \times I_{GND}$

$P_{D(MAX)} = (T_{J(MAX)}-T_A)/\theta_{JA}$

$T_{J(MAX)}$ T_A



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.85	0.90	0.95
	0.70	0.75	0.80
	0.80	0.85	0.90
A1	0	0.02	0.05
b	0.20	0.25	0.30
c	0.20REF		
D	2.90	3.00	3.10
D2	2.40	2.50	2.60
e	0.50BSC		
Nd	2.00BSC		
E	2.90	3.00	3.10
E2	1.45	1.55	1.65
L	0.30		



DFN10L

BST6010L2	DFN10L	3000pcs/Tape&Reel