



## 18V，低功耗，高压 LDO 稳压器

## 产品概述

PW6218 系列是采用 CMOS 工艺制造，低功耗的高压稳压器，最高输入电压可达 18V，输出电压范围 3V~5.0V。它具有高精度的输出电压、极低的供电电流、极低的跌落电压等特点。

PW6218 系列采用 SOT-23-3L 小型封装。

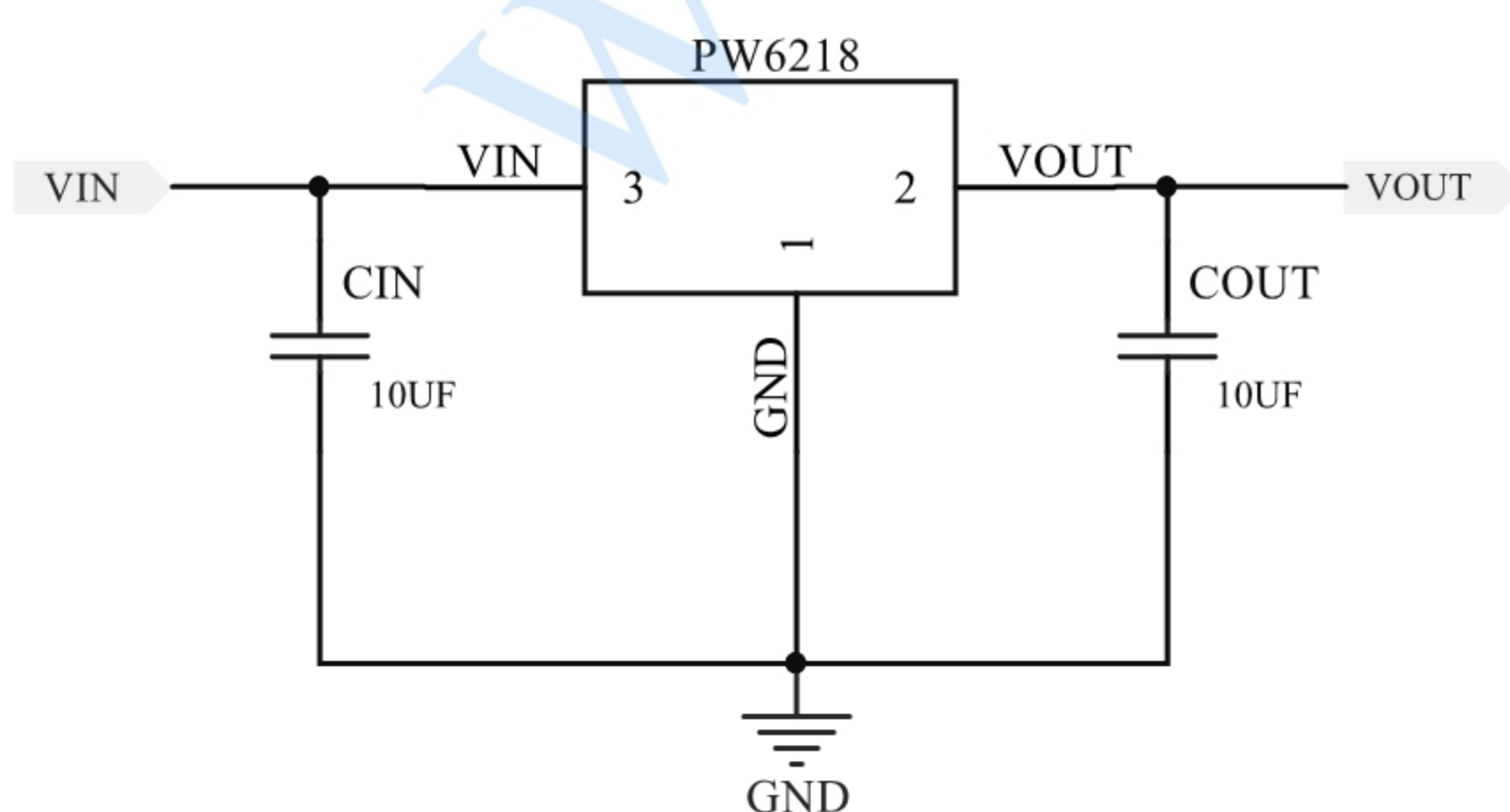
## 产品特点

- 低功耗：  $\leq 3\mu\text{A}$
- 低跌落电压：典型值 0.1V
- 低温漂：典型值 50 ppm/°C
- 高的输入电压： 最高可达 18V
- 高精度的输出电压： 容差为 +3%
- 封装： SOT-23-3

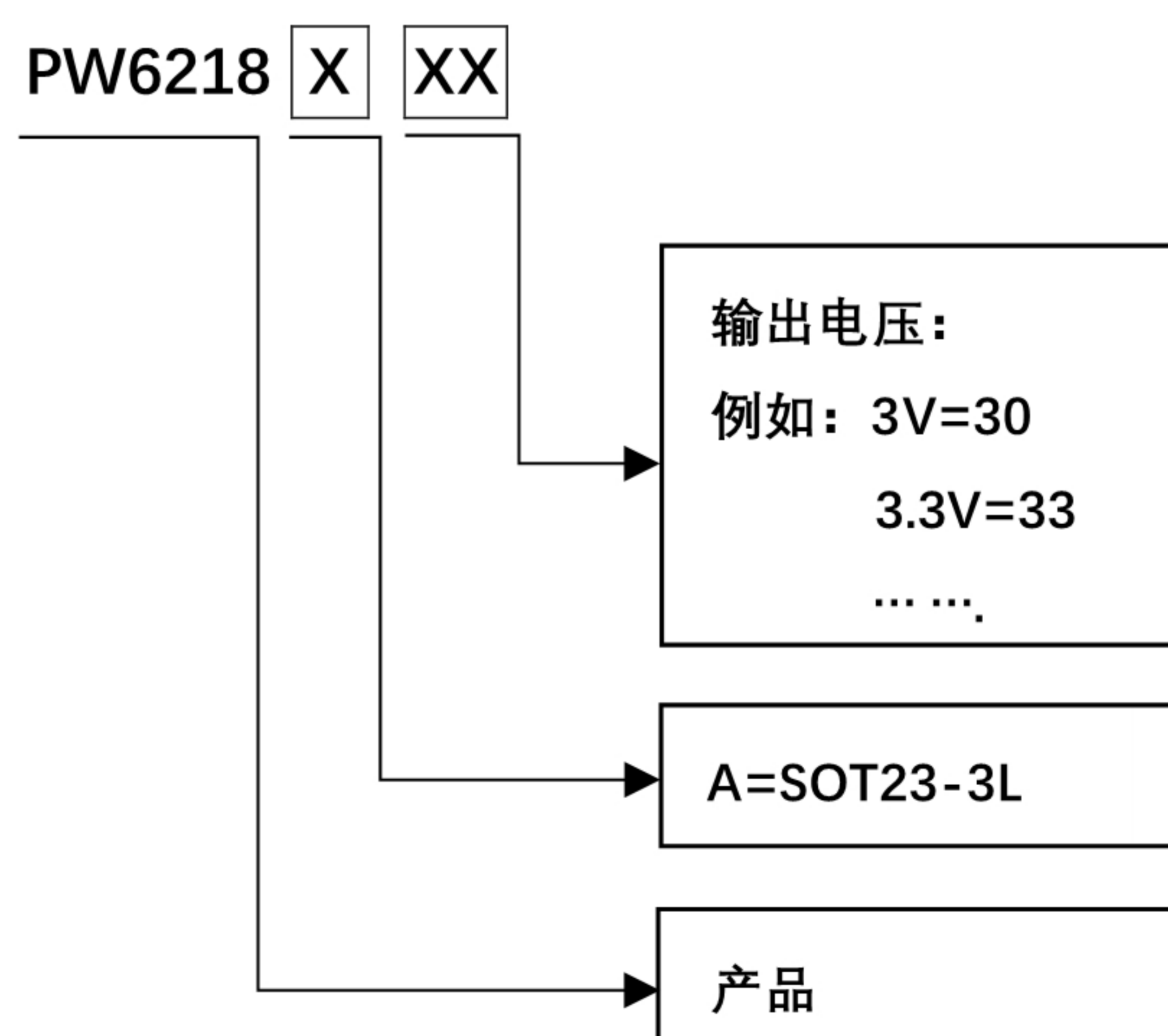
## 用途

- 电池供电设备
- 基准电压源
- 相机、视频相机
- 移动电话
- 通信工具

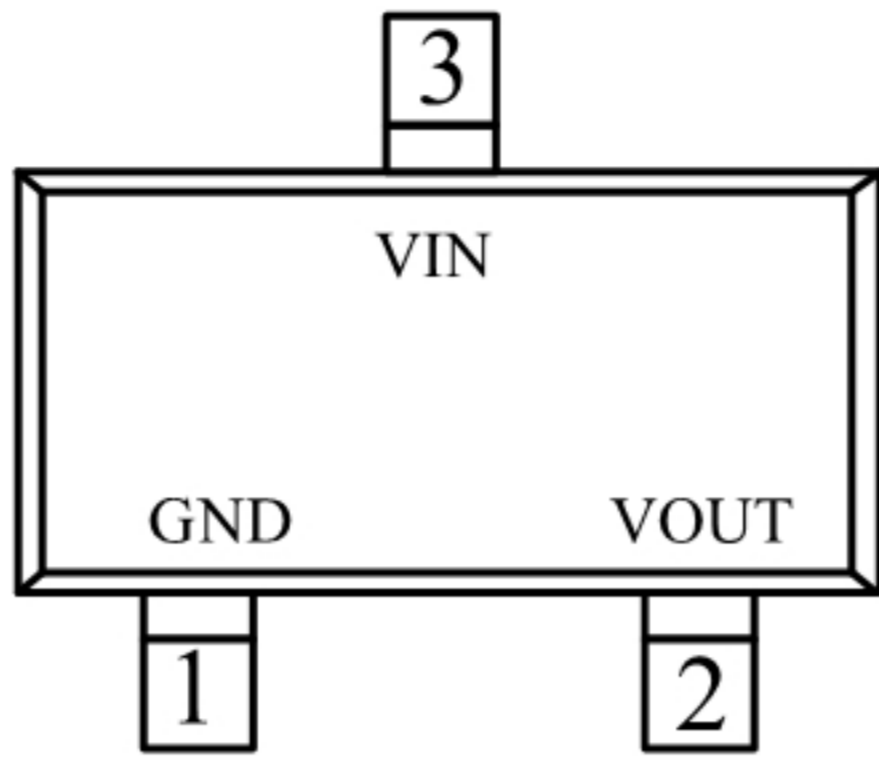
## 典型应用



## 订购信息



引脚配置/说明



SOT-23-3L  
(TOP VIEW)

引脚号	符号	引脚说明
1	GND	接地端
2	VOUT	输出端
3	VIN	输入端

绝对最大额定值

项目	符号	值	单位
输入电压	VIN	20	V
容许功耗	PD	200	mW
工作温度	Topr	-25 ~ +70	°C
保存温度	Tstg	-50 ~ +125	°C
焊接温度(10S)	Th	260	°C

注意:绝对最大额定值是指无论在任何条件下都不能超过的额定值。万一超过此额定值，有可能造成产品劣化等物理性损伤。

电气特性 (TA=25°C)

PW6218A30

符号	参数	测试条件	最小值	典型值	最大值	单位
VOUT	输出电压	VIN = 5V, IOUT = 1mA	2.91	3	3.09	V
IOUT	输出电流	VIN = 5V	60	100	—	mA
ΔVOUT	负载调节	VIN = 5V, 1mA ≤ IOUT ≤ 50mA	—	60	150	mV
VDIF	跌落电压	IOUT = 1mA	—	100	—	mV
Iss	静态电流	VIN = 5V, 空载	—	2	3	μA
ΔVOUT / (ΔVIN * VOUT)	Line Regulation	4V ≤ VIN ≤ 18V, IOUT = 1mA	—	0.2	—	% / V
VIN	输入电压	—	—	—	18	V
ΔVOUT / ΔTa	温度系数	VIN = 5V, IOUT = 10mA, 0°C ≤ Ta ≤ 70°C	—	±0.45	—	mV/°C



PW6218A33

符号	参数	测试条件	最小值	典型值	最大值	单位
V <sub>OUT</sub>	输出电压	V <sub>IN</sub> = 5V, I <sub>OUT</sub> = 1mA	3.201	3.3	3.399	V
I <sub>OUT</sub>	输出电流	V <sub>IN</sub> = 5.5V	60	100	–	mA
ΔV <sub>OUT</sub>	负载调节	V <sub>IN</sub> = 5.5V, 1mA ≤ I <sub>OUT</sub> ≤ 50mA	–	60	150	mV
V <sub>DIF</sub>	跌落电压	I <sub>OUT</sub> = 1mA	–	100	–	mV
I <sub>SS</sub>	静态电流	V <sub>IN</sub> = 5.5V, 空载	–	2	3	μA
ΔV <sub>OUT</sub> / (ΔV <sub>IN</sub> * V <sub>OUT</sub> )	Line Regulation	4.5V ≤ V <sub>IN</sub> ≤ 18V, I <sub>OUT</sub> = 1mA	–	0.2	–	% / V
V <sub>IN</sub>	输入电压	–	–	–	18	V
ΔV <sub>OUT</sub> / ΔT <sub>a</sub>	温度系数	V <sub>IN</sub> = 5.5V, I <sub>OUT</sub> = 10mA, 0°C ≤ T <sub>a</sub> ≤ 70°C	–	±0.5	–	mV/°C

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符号	参数	测试条件	最小值	典型值	最大值	单位
V <sub>OUT</sub>	输出电压	V <sub>IN</sub> = 5V, I <sub>OUT</sub> = 1mA	3.492	3.6	3.708	V
I <sub>OUT</sub>	输出电流	V <sub>IN</sub> = 5.6V	60	100	–	mA
ΔV <sub>OUT</sub>	负载调节	V <sub>IN</sub> = 5.6V, 1mA ≤ I <sub>OUT</sub> ≤ 30mA	–	60	150	mV
V <sub>DIF</sub>	跌落电压	I <sub>OUT</sub> = 1mA	–	100	–	mV
I <sub>SS</sub>	静态电流	V <sub>IN</sub> = 5.6V, 空载	–	2	3	μA
ΔV <sub>OUT</sub> / (ΔV <sub>IN</sub> * V <sub>OUT</sub> )	Line Regulation	4.6V ≤ V <sub>IN</sub> ≤ 18V, I <sub>OUT</sub> = 1mA	–	0.2	–	% / V
V <sub>IN</sub>	输入电压	–	–	–	18	V
ΔV <sub>OUT</sub> / ΔT <sub>a</sub>	温度系数	V <sub>IN</sub> = 5.6V, I <sub>OUT</sub> = 10mA, 0°C ≤ T <sub>a</sub> ≤ 70°C	–	±0.6	–	mV/°C

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符号	参数	测试条件	最小值	典型值	最大值	单位
V <sub>OUT</sub>	输出电压	V <sub>IN</sub> = 6V, I <sub>OUT</sub> = 1mA	4.268	4.4	4.532	V
I <sub>OUT</sub>	输出电流	V <sub>IN</sub> = 6.4V	60	100	–	mA
ΔV <sub>OUT</sub>	负载调节	V <sub>IN</sub> = 6.4V, 1mA ≤ I <sub>OUT</sub> ≤ 30mA	–	60	150	mV
V <sub>DIF</sub>	跌落电压	I <sub>OUT</sub> = 1mA	–	100	–	mV
I <sub>SS</sub>	静态电流	V <sub>IN</sub> = 6.4V, 空载	–	2	3	μA
ΔV <sub>OUT</sub> / (ΔV <sub>IN</sub> * V <sub>OUT</sub> )	Line Regulation	5.4V ≤ V <sub>IN</sub> ≤ 18V, I <sub>OUT</sub> = 1mA	–	0.2	–	% / V
V <sub>IN</sub>	输入电压	–	–	–	18	V
ΔV <sub>OUT</sub> / ΔT <sub>a</sub>	温度系数	V <sub>IN</sub> = 6.4V, I <sub>OUT</sub> = 10mA, 0°C ≤ T <sub>a</sub> ≤ 70°C	–	±0.7	–	mV/°C

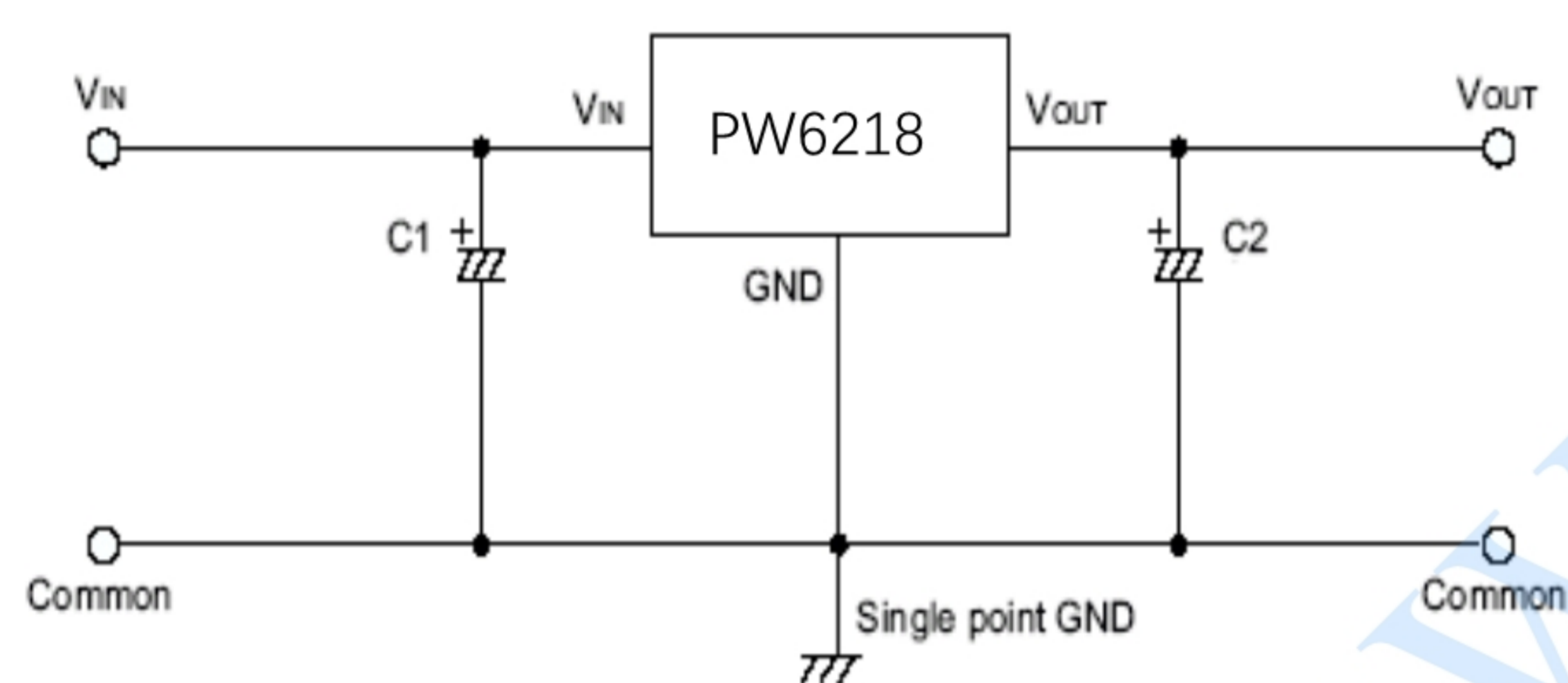


PW6218A50

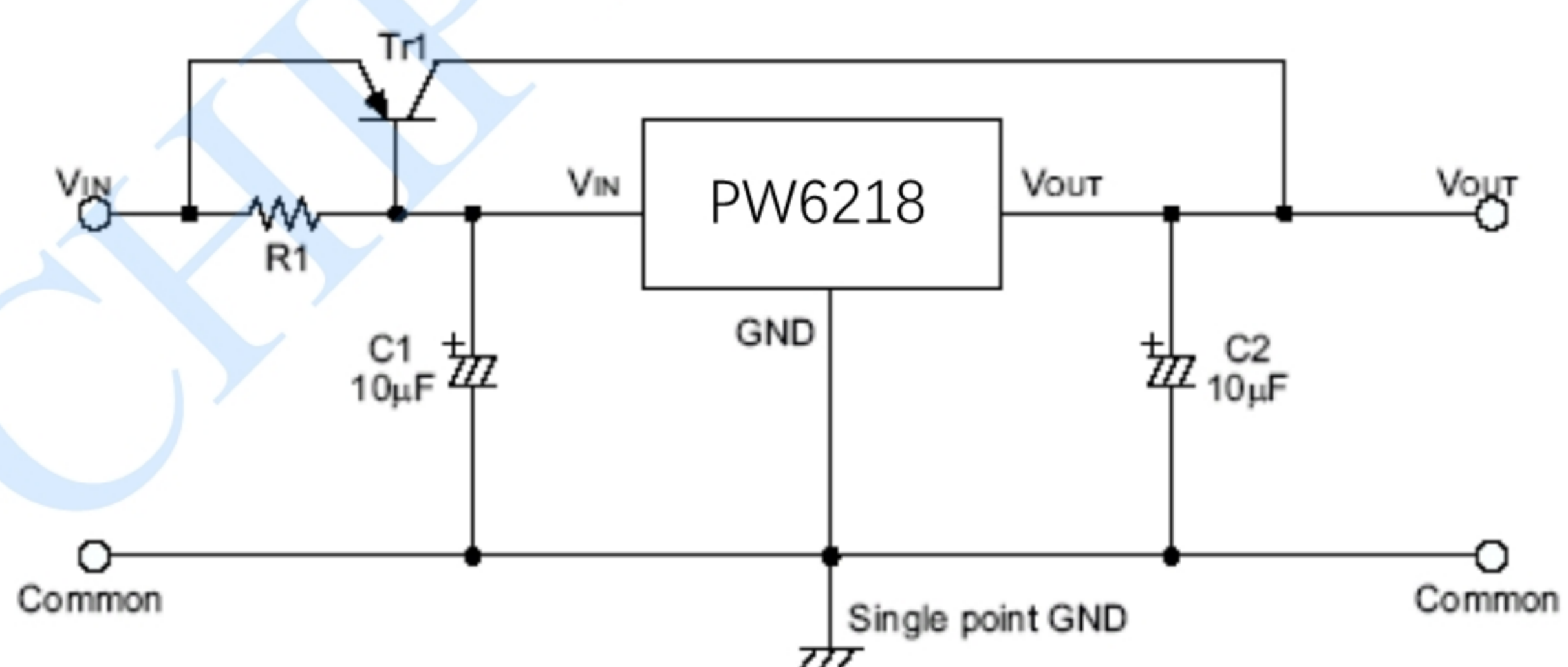
符号	参数	测试条件	最小值	典型值	最大值	单位
V <sub>OUT</sub>	输出电压	V <sub>IN</sub> = 7V, I <sub>OUT</sub> = 1mA	4.85	5	5.15	V
I <sub>OUT</sub>	输出电流	V <sub>IN</sub> = 7V	60	100	–	mA
ΔV <sub>OUT</sub>	负载调节	V <sub>IN</sub> = 7V, 1mA ≤ I <sub>OUT</sub> ≤ 30mA	–	60	150	mV
V <sub>DIF</sub>	跌落电压	I <sub>OUT</sub> = 1mA	–	100	–	mV
I <sub>SS</sub>	静态电流	V <sub>IN</sub> = 7V, 空载	–	2	3	μA
ΔV <sub>OUT</sub> / (ΔV <sub>IN</sub> * V <sub>OUT</sub> )	Line Regulation	6V ≤ V <sub>IN</sub> ≤ 18V, I <sub>OUT</sub> = 1mA	–	0.2	–	% / V
V <sub>IN</sub>	输入电压	–	–	–	18	V
ΔV <sub>OUT</sub> / ΔT <sub>a</sub>	温度系数	V <sub>IN</sub> = 7V, I <sub>OUT</sub> = 10mA, 0°C ≤ T <sub>a</sub> ≤ 70°C	–	±0.75	–	mV/°C

## 应用电路实例

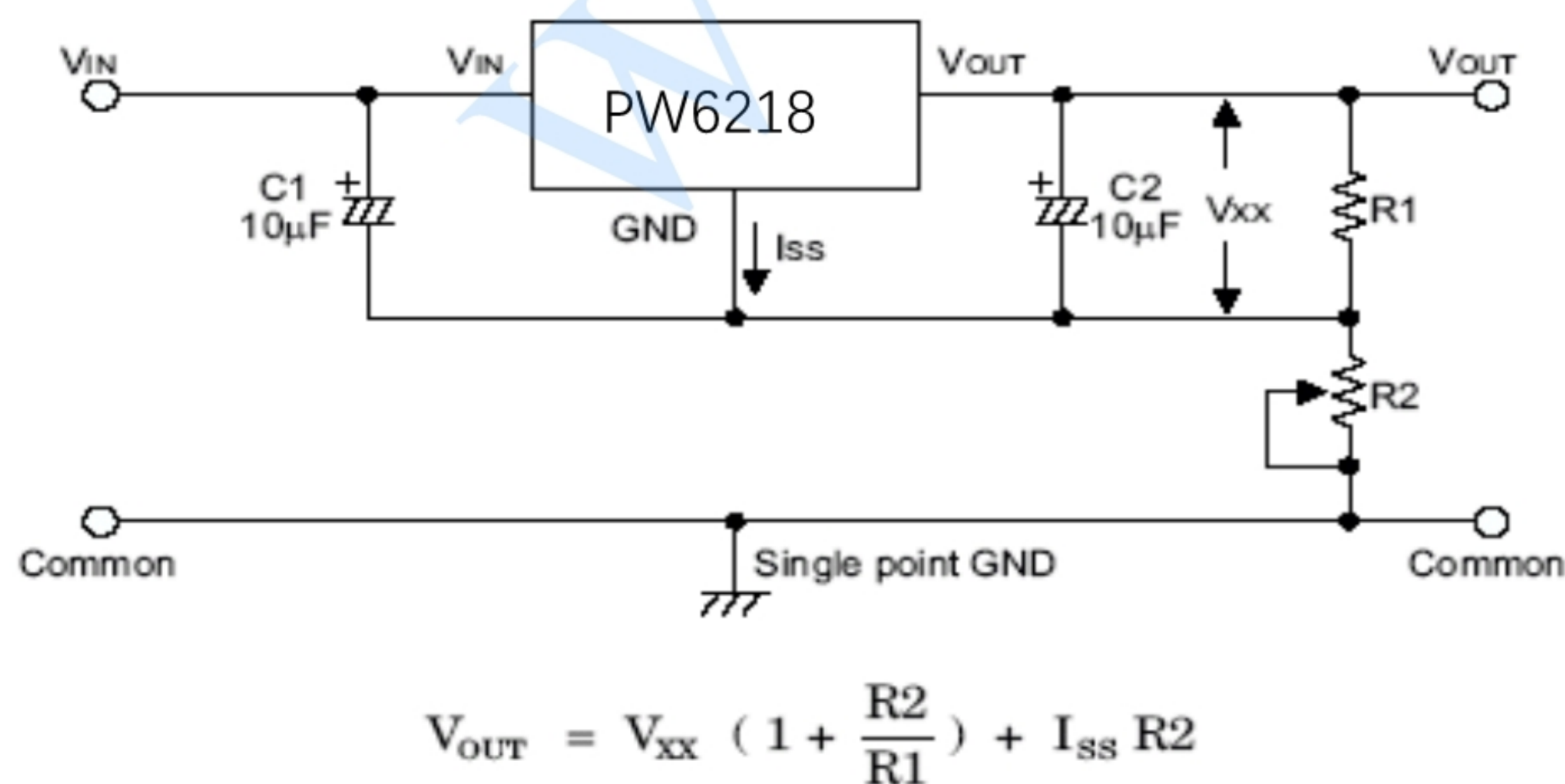
### 1、基本电路



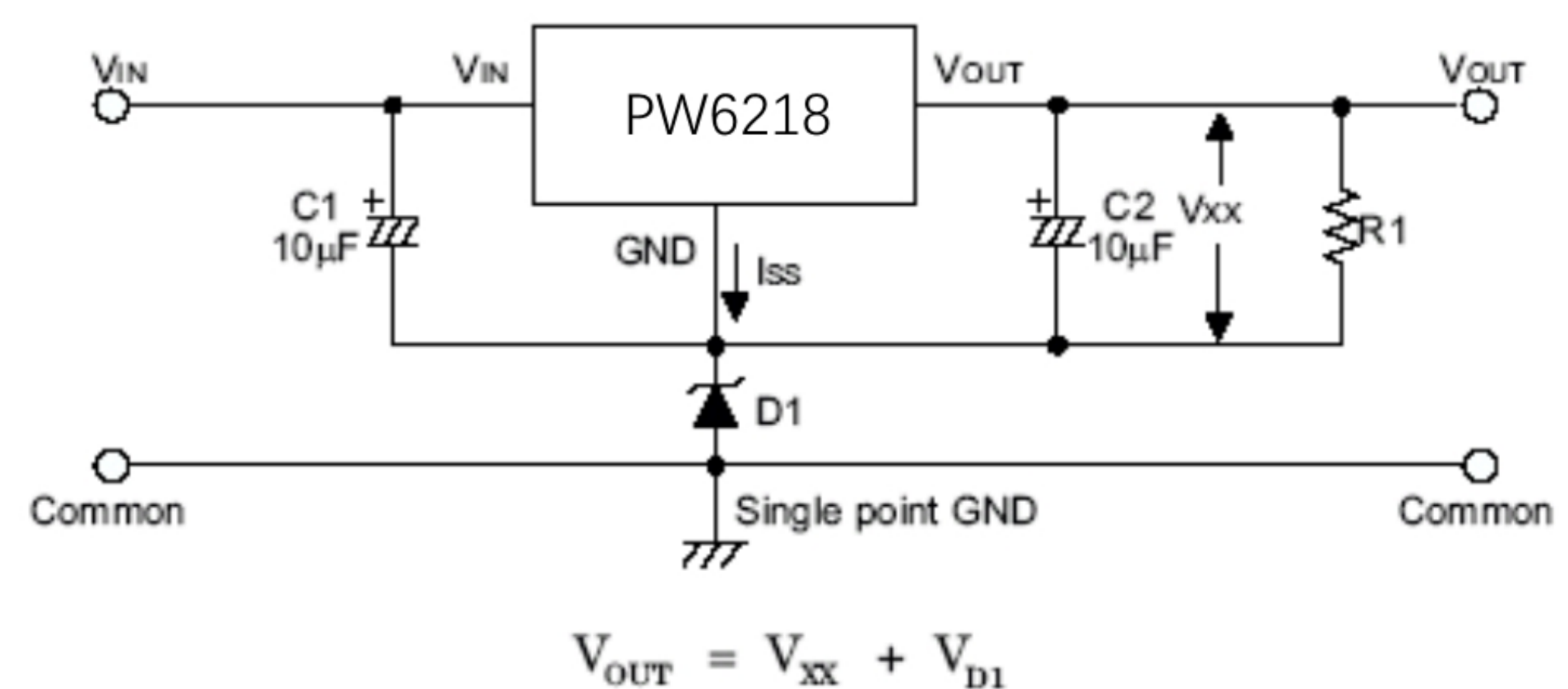
### 2、高输出电流稳压电路



### 3、提高输出电压值的电路



### 4、提高输出电压值的电路

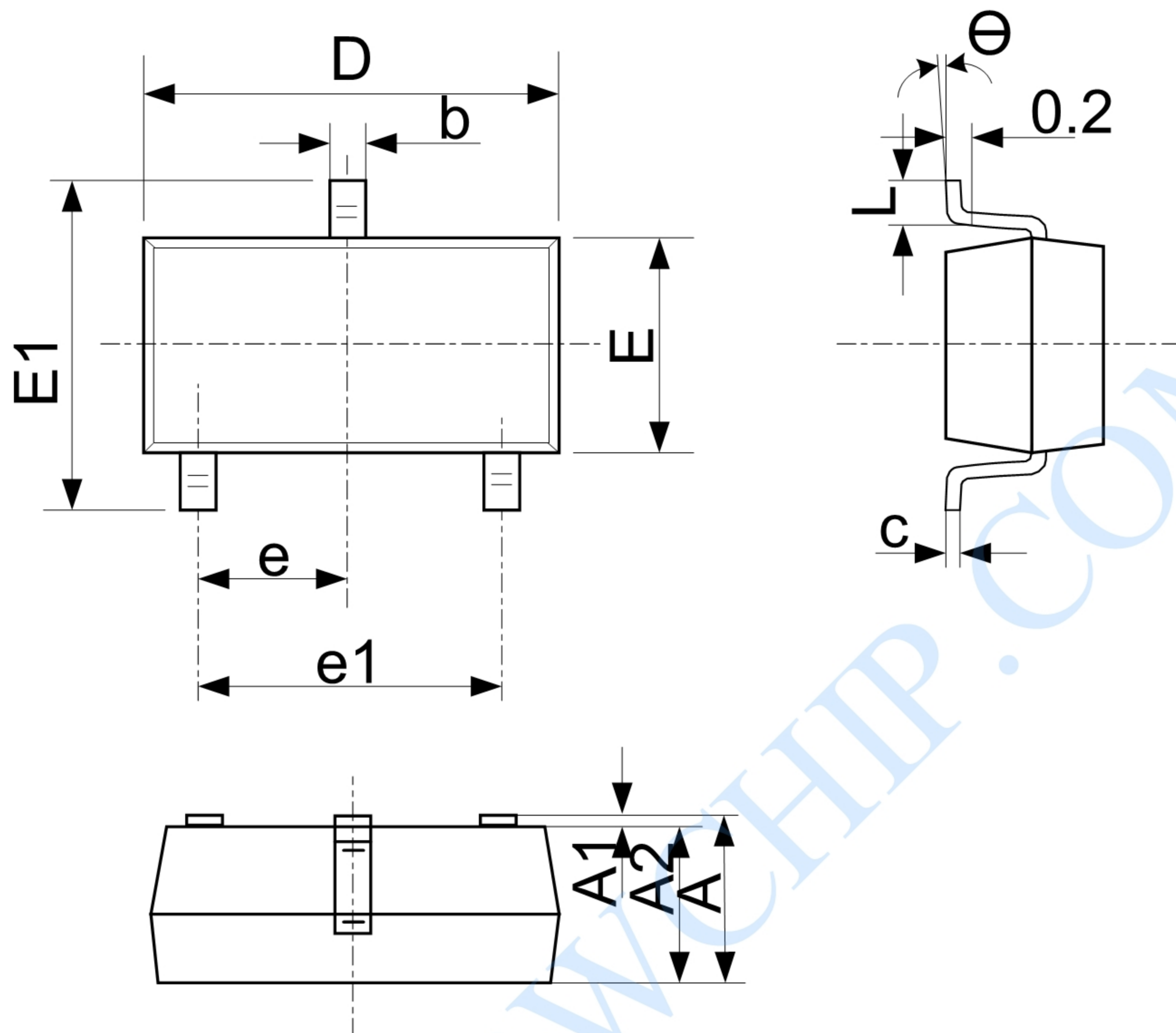


注意：上述连接图以及参数并不作为保证电路工作的依据，实际的应用电路请在进行充分的实测基础上设定参数



## 封装信息

## SOT23-3L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0℃	8℃	0℃	8℃



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