TP61C Series

Low power consumption and high-precision voltage detection

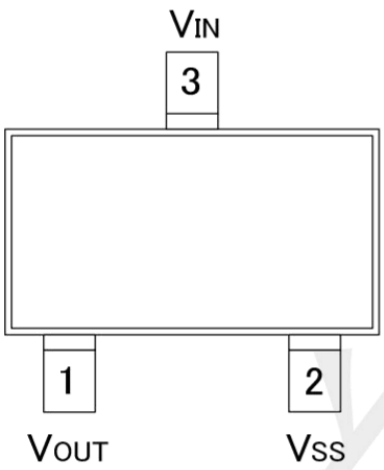
Features

- Output voltage accuracy: ± 2%
- Static working current: 2uA
- Detection voltage range: 1.0-5.0V (100mV step)
- Operating voltage range: 0.7V~6.5V
- Output compatibility application: CMOS or N-channel open drain

Applications

- Microprocessor reset circuitry
- Memory battery back-up circuits
- Power-on reset circuits
- Power failure detection
- System battery life and charge voltage monitors

Pin Definition



SOT23

Ordering Information

TP61C C XX XX S3

C:CMOS output

S3:SOT23

Voltage detection threshold:
25=2.5V
33=3.3V
50=5.0V

Voltage detection accuracy:
02=± 2%

PIN CONFIGURATION

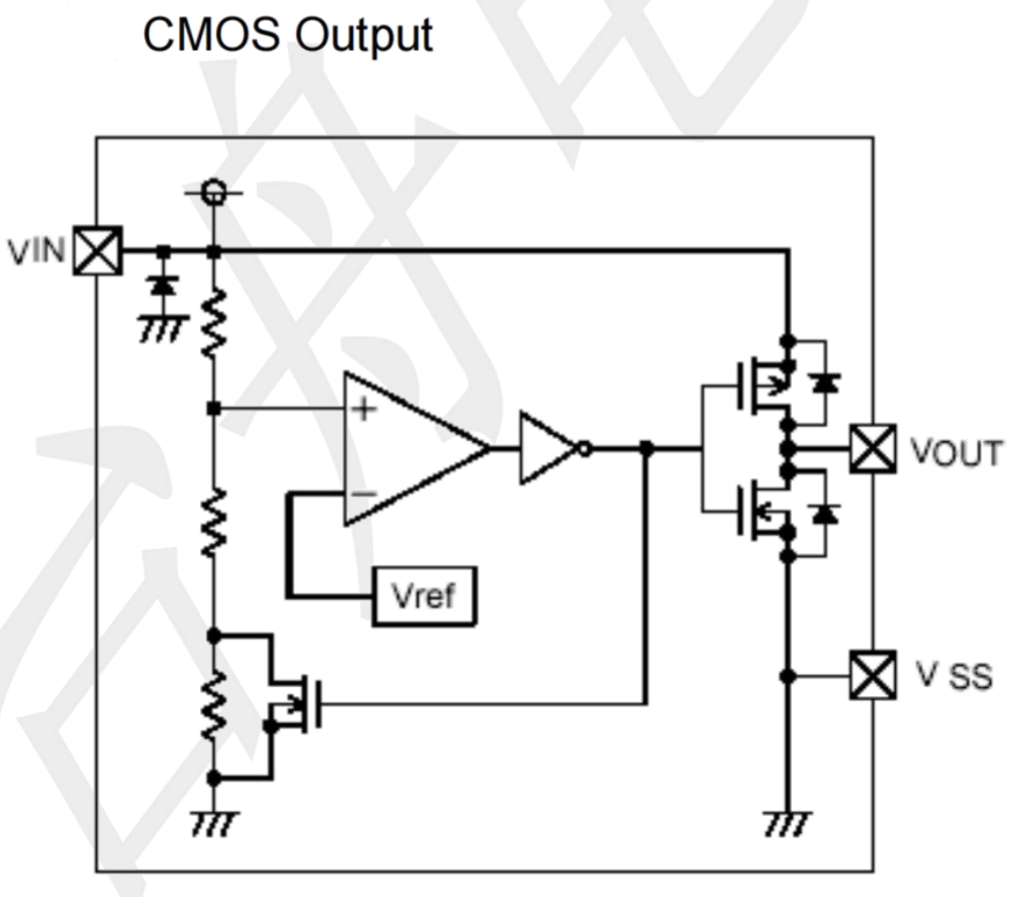
Pin Number	Pin Name	Pin Function
1	VOUT	Output pin
2	VSS	Ground
3	VIN	Input pin

Absolute Maximum Ratings

over operating free-air temperature range (unless otherwise noted)

PARAMETER		MIN	MAX	UNIT
VIN	Continuous input voltage range	-0.3	8	V
VOUT	Output voltage CMOS	-0.3	VIN+0.3	
IOUT	Output pin current	50		mA
PD	Total Power Dissipation T_C=25℃	250		mW
θJA	Package Thermal Resistance	260		℃/W
Temperature	Operating Temperature ,Topr	-25	+85	℃
	Storage, Tstg	-40	+125	
TIsolder	Soldering temperature	260,10s		

BLOCK DIAGRAM

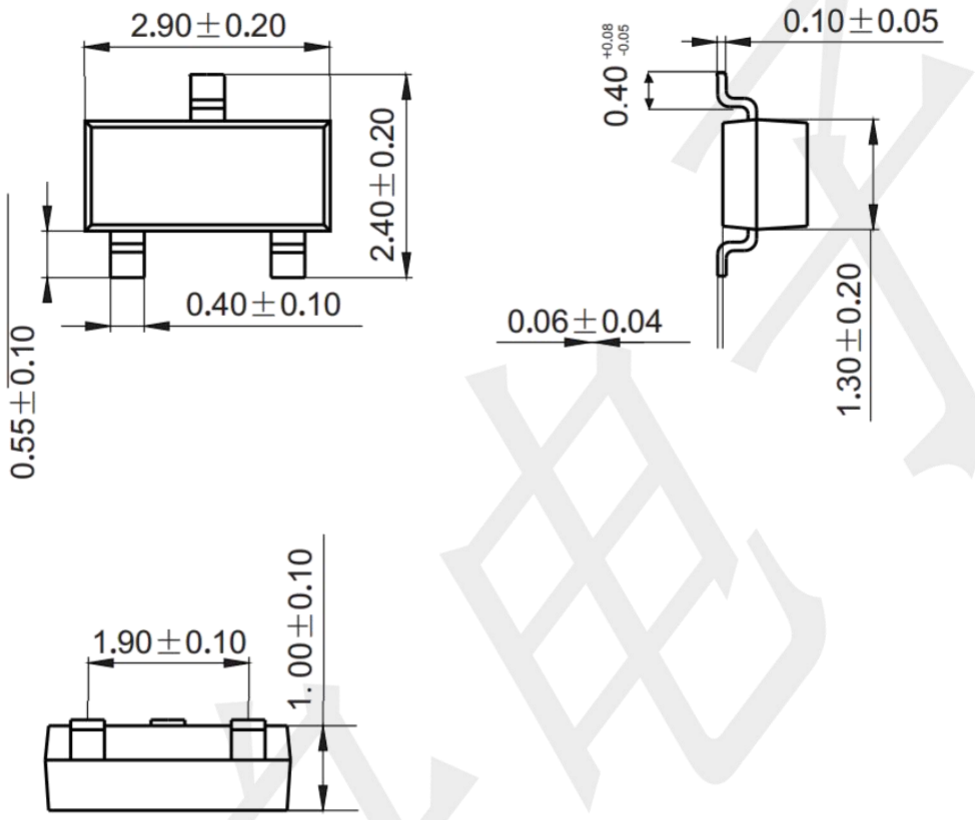


Electrical Characteristics (V_{DF} = 1.0-5.0V)

PARAMETER	SYMBOL	TEST Conditions	MIN	TYP	MAX	UNIT
Detection voltage	VDF		*0.98	--	*1.02	V
Hysteresis voltage	VHYS		--	VDF*0.05	--	V
Input Current	IDD	Vin=1.5V	--	1.0	--	uA
		Vin=2.0V	--	1.0	--	
		Vin=3.0V	--	1.0	--	
		Vin=4.0V	--	1.0	--	
		Vin=5.0V	--	1.0	--	
Working voltage	VDD	VDF=1.0-5.0V	0.8	--	6.5	V
Output current	IOUT	Vin=1.5V	--	2.5	--	mA
		Vin=2.0V	--	7.7	--	
		Vin=3.0V	--	10.1	--	
		Vin=4.0V	--	11.5	--	
		Vin=5.0V	--	13.0	---	
Temperature		-40℃~+85℃	--	±100	--	ppm/℃

Package Outline Dimensions (unit: mm)

SOT23



Mounting Pad Layout (unit: mm)