

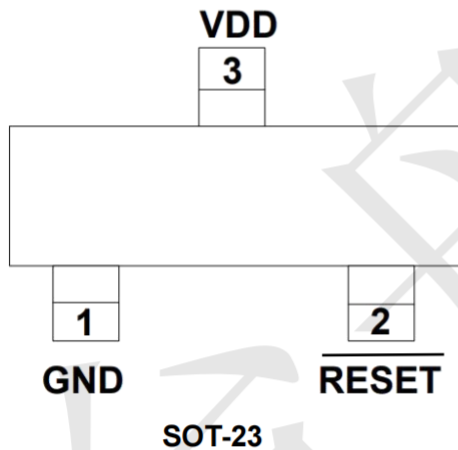
Features

- High Accurate $\pm 2\%$
- Precision VCC Monitoring of +2.5V, +3V, +3.3V and +5V Supplies
- Power Supply Transient Immunity
- Guaranteed Reset Valid to $VCC = +1V$
- Fully Specified Over Temperature
- 2 μA Supply Current
- Available in One Output Configuration: Open-Drain Active-Low \overline{RESET} Output
- Packages SOT-23

Applications

- Computers
- Embedded Systems
- Battery-Powered Equipments
- Intelligent Instruments
- CPU and Logic Circuit Reset
- Power Fail Detectors
- Automotive

Pin Definition



Ordering Information

TPNCP803SN308T1G

RESET VOLTAGE:

- 463=4.63V
- 438=4.38V
- 400=4.00V
- 308=3.08V
- 293=2.93V
- 263=2.63V

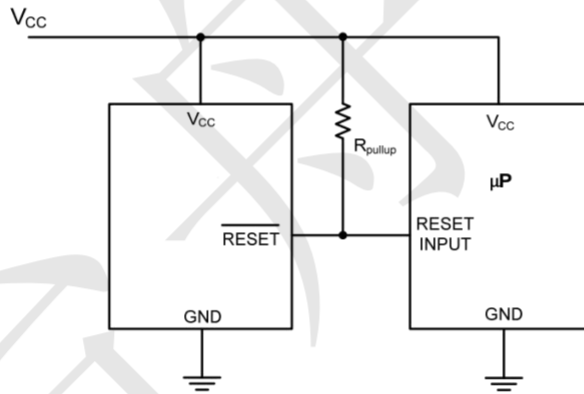
PIN CONFIGURATION

PIN	NAME	FUNCTION
1	GND	Ground
2	\overline{RESET}	\overline{RESET} Output remains low while VCC is below the reset threshold, and for at least 140ms after VCC rises above the reset threshold.
3	VCC	+5V, +3.3V, +3V or +2.5V Supply Voltage .

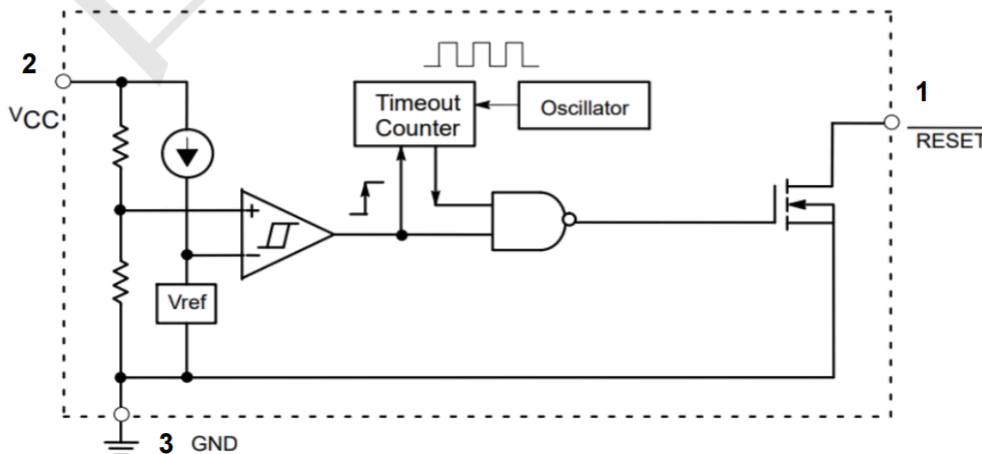
Absolute Maximum Ratings

Symbol	Parameter	Value	UNIT
VCC	Supply Voltage	-0.3 to +6.0	V
	$\overline{\text{RESET}}$	-0.3 to +6.0	V
ICC	Input Current, VCC	20	mA
IO	Output Current, $\overline{\text{RESET}}$	20	mA
	Rate of Rise, VCC	100	V/ μ s
PD	Continuous Power Dissipation Derate 4mW/ $^{\circ}$ C above 70 $^{\circ}$ C	320	mW
TA	Operating Temperature Range	-40 to +105	$^{\circ}$ C
TSTG	Storage Temperature Range	-65 to +150	$^{\circ}$ C
R θ JC	Thermal Resistance from Junction to Case	110	$^{\circ}$ C/W
R θ JA	Thermal Resistance from Junction to Ambient	250	$^{\circ}$ C/W

TYPICAL APPLICATIN CIRCUIT



FUNCTIONAL BLOCK DIAGRAM

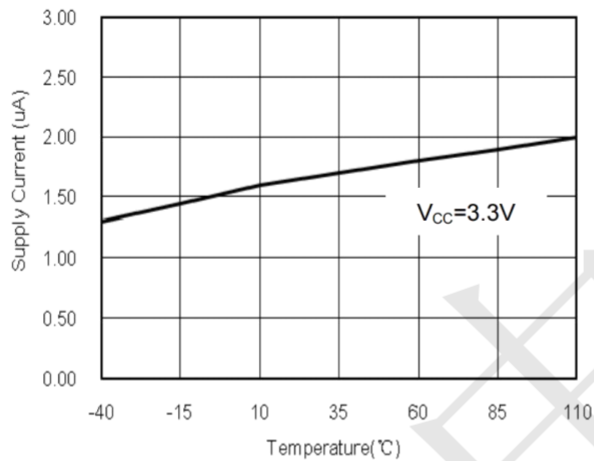


Electrical Characteristics

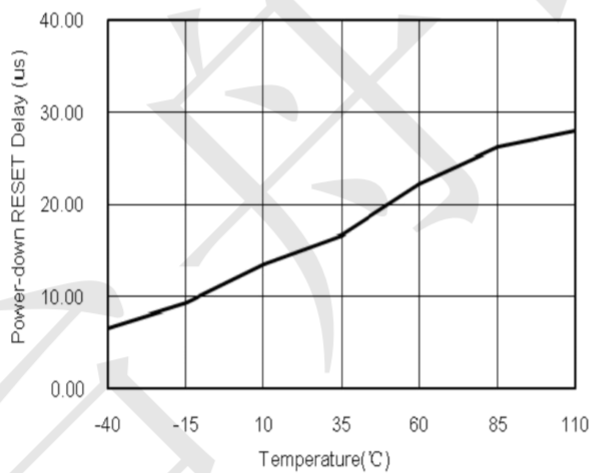
Symbol	Parameter	Conditions	MIN	Typ	MAX	UNIT	
VCC	Supply Voltage Range	TA=0°C to +70°C	1.0	--	5.5	V	
ICC	Supply Current		--	2.0	--	uA	
VTH	Reset Threshold	463 Version	TA=+25°C	4.56	4.63	4.70	V
			TA=-40°C to +85°C	4.50	--	4.75	
		438 Version	TA=+25°C	4.31	4.38	4.45	
			TA=-40°C to +85°C	4.25	--	4.50	
		400 Version	TA=+25°C	3.93	4.00	4.06	
			TA=-40°C to +85°C	3.89	--	4.10	
		308 Version	TA=+25°C	3.04	3.08	3.11	
			TA=-40°C to +85°C	3.00	--	3.15	
		293 Version	TA=+25°C	2.89	2.93	2.96	
			TA=-40°C to +85°C	2.85	--	3.00	
		263 Version	TA=+25°C	2.59	2.63	2.66	
			TA=-40°C to +85°C	2.55	--	2.70	
	Reset Threshold Tempco		--	150	--	ppm/°C	
	VCC to Reset Delay	VCC=VTH to (VTH-100mV)	--	10	--	μS	
TRP	Reset Active Timeout Period		140	240	560	mS	
VOL	RESET Output Voltage Low	VCC=VTH min, ISINK=1.2mA, T_/S_/R_/Z_	--	--	0.3	V	
		VCC=VTH min, ISINK=3.2mA, T_/S_/R_/Z_	--	--	0.4		
		VCC>1.0V, ISINK=50μA	--	--	0.3		
	RESET Open-Drain Output Leakage Current	VCC>VTH, RESET Deasserted	--	--	1	μA	

Typical Operating Characteristics($T_A=+25^{\circ}\text{C}$, unless otherwise noted.)

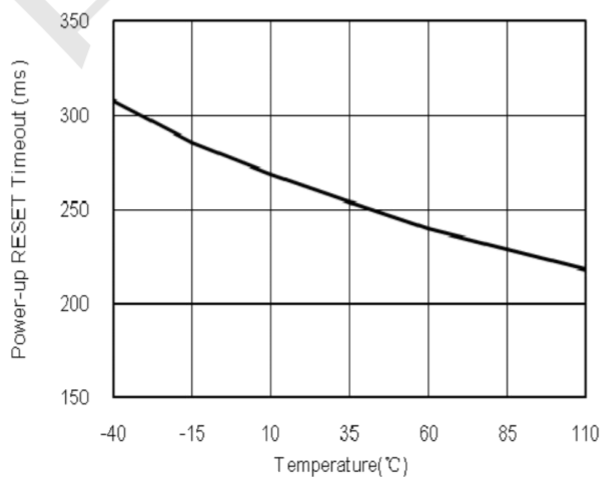
Supply Current vs. Temperature



Power-Down RESET Delay vs. Temperature

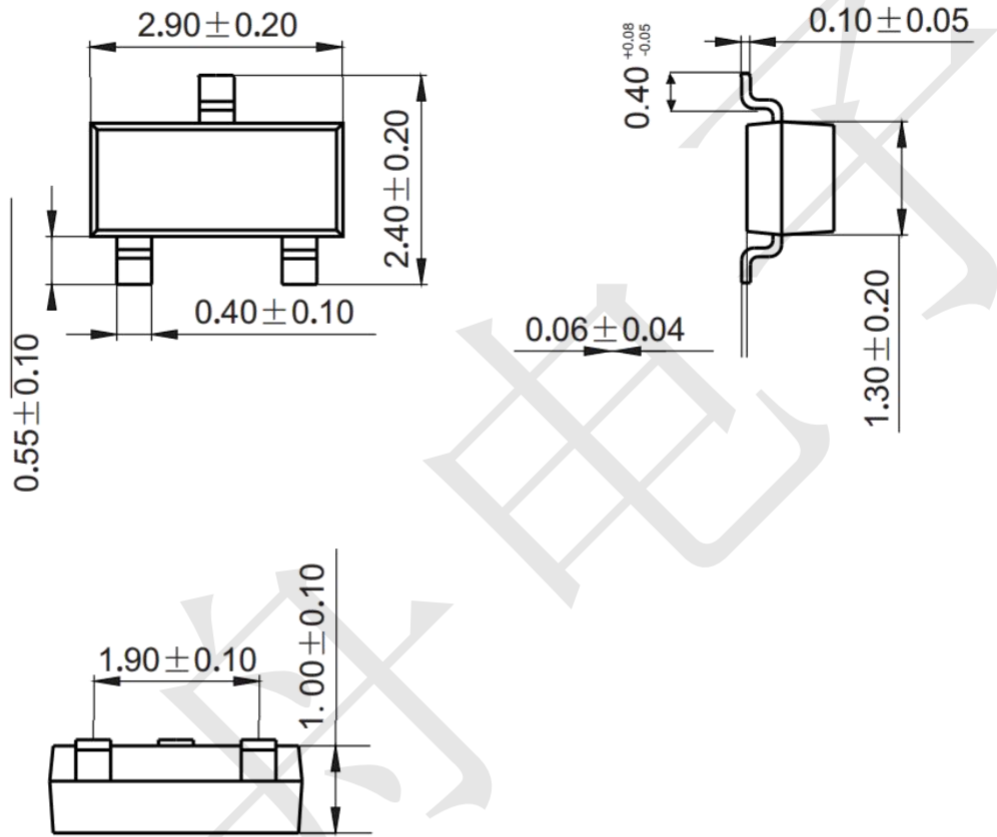


Power-Up RESET Timeout vs. Temperature



Package Outline Dimensions (unit: mm)

SOT-23



Mounting Pad Layout (unit: mm)

