

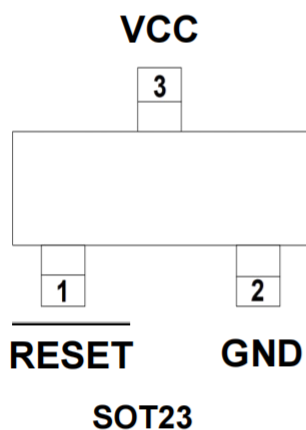
Features

- Typical Quiescent Current of 3 μ A
- No External Components
- V_{CC} Transient Immunity
- Correct Logic Output Guaranteed to V_{CC}=1.0V
- Push-Pull Low Active Reset Output
- Packages SOT23

Applications

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

Pin Definition



Ordering Information

TPAPX809S-29SR

RESET VOLTAGE: PACKAGE TYPE
SOT23

26=2.63V
29=2.93V
31=3.08V
40=4.00V
44=4.38V
46=4.63V

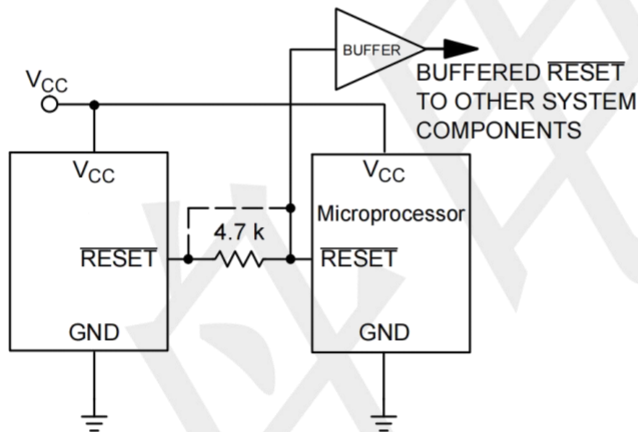
PIN CONFIGURATION

PIN	NAME	FUNCTION
1	RESET	RESET output remains low while VCC is below the reset voltage threshold, and for a reset timeout period after VCC rises above reset threshold
2	GND	Ground
3	VCC	Supply Voltage .

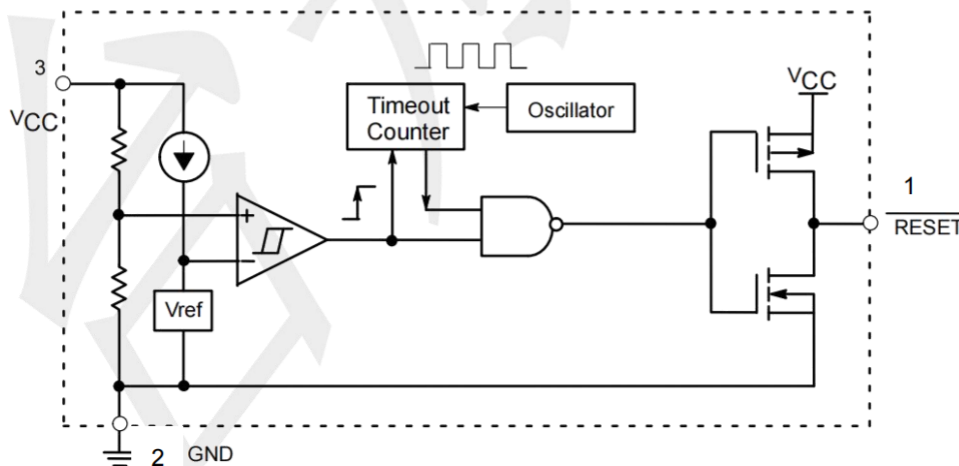
Absolute Maximum Ratings (Note 1)

Symbol	Parameter	Value	UNIT
VCC	Any pin with respect to ground	-0.3 to +6.0	V
ICC	Input Current, VCC	20	mA
IO	Output Current, RESET	20	mA
	Rate of Rise, VCC	100	V/ μ s
PD	Continuous Power Dissipation	250	mW
TA	Operating Temperature Range	-40 to +85	$^{\circ}$ C
TSTG	Storage Temperature Range	-65 to +105	$^{\circ}$ 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 APPLICATION CIRCUIT



FUNCTIONAL BLOCK DIAGRAM



Series Complementary Active-Low Output

Electrical Characteristics

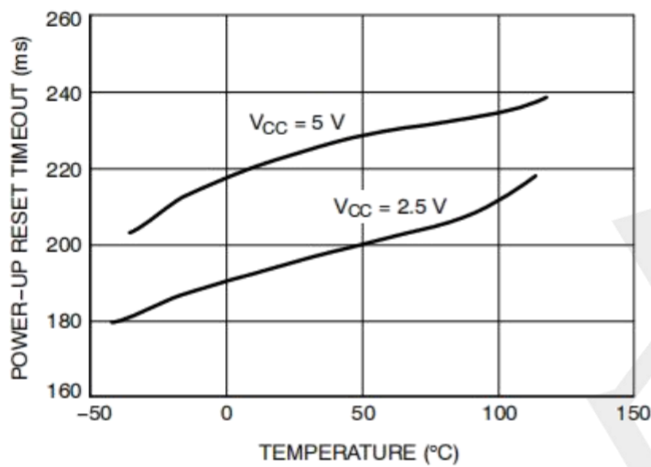
(VCC=full range, TA=-40°C to +85°C, unless otherwise noted. Typical values are at TA=+25°C, VCC=5V for L/M/J versions, VCC=3.3V for T/S versions, VCC=3V for R version, and VCC=2.5V for Z version.) Note1

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
	VCC Range	TA=0°C to +70°C	1.0		5.5	V
ICC	Supply Current	VCC<5.5V, L/M/J		3	5	μA
		VCC<3.6V, R/S/T/Z		3	5	
VTH	Reset Threshold	TA=+25°C	2.89	2.93	2.97	V
Reset Threshold Tempco				30		ppm/°C
VCC to Reset Delay		VCC=VTH to (VTH-100mV)		10		μs
Reset Active Timeout Period		TA=-40°C to +85°C	140	240	360	ms
VOL	RESET Output Voltage Low (Push-Pull Active Low)	VCC=VTH min, ISINK=1.2mA, S/T/Z			0.3	V
		VCC=VTH min, ISINK=3.2mA, J/L/M			0.4	
		VCC≤1.0V, ISINK=50μA			0.3	
VOH	RESET Output Voltage High (Push-Pull Active Low)	VCC>VTH max, ISOURCE=500μA, S/T/Z	0.8VCC			V
		VCC>VTH max, ISOURCE=800μA, J/L/M	VCC-1.5			

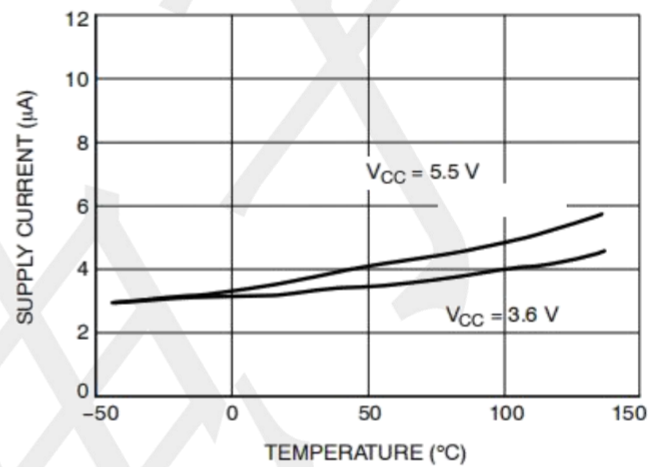
Note 1: Production testing done at TA=+25°C; limits over temperature guaranteed by design only.

Typical Operating Characteristics

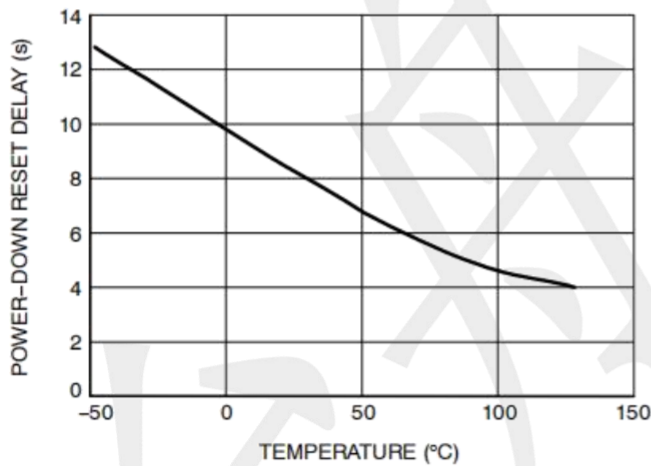
(VCC = Full range, TA = -40°C to +85°C unless otherwise noted. Typical values at TA = +25°C and VCC = 5 V for the L/M/J versions, VCC = 3.3 V for the T/S versions, VCC = 3 V for the R version and VCC = 2.5 V for the Z version.)



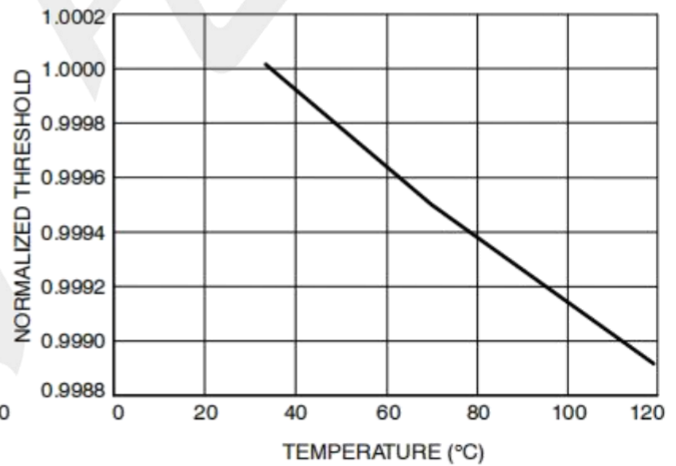
Power-Up Reset Timeout vs. Temperature



Supply Current vs. Temperature (No Load,)



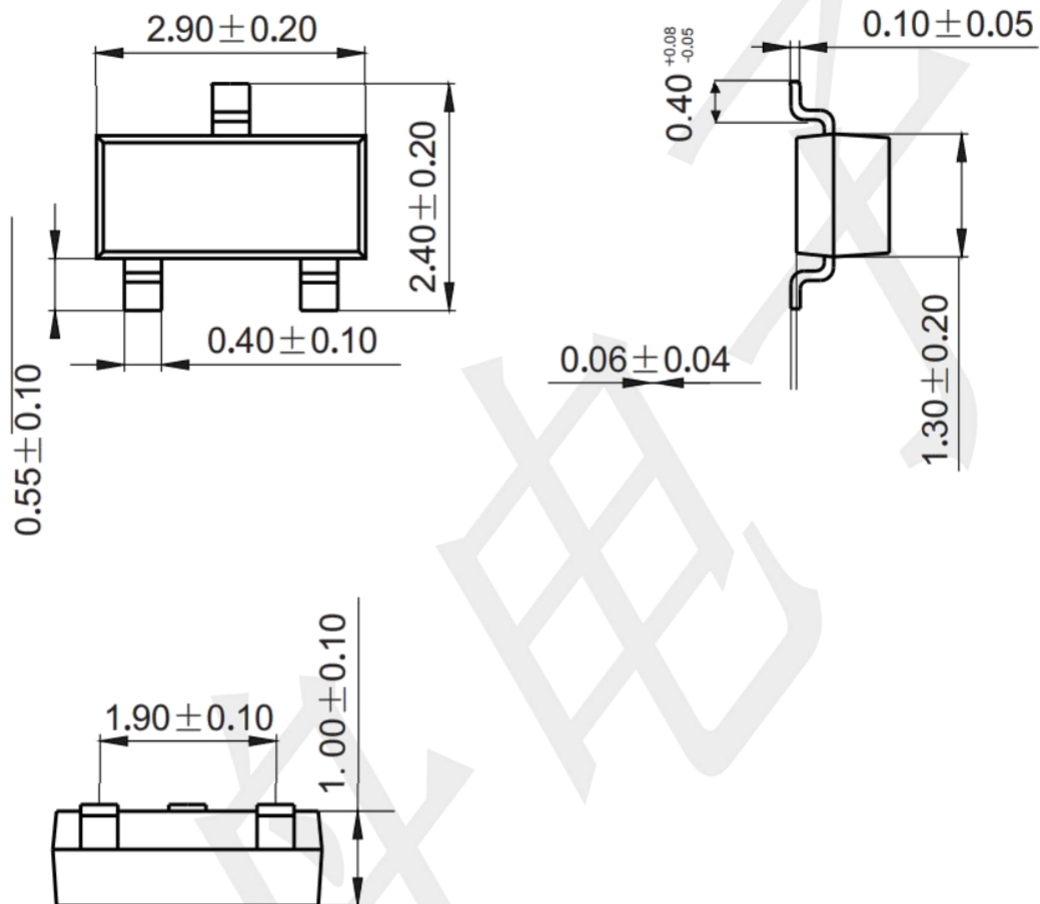
Power-Down Reset Delay vs. Temperature



Normalized Reset Threshold vs. Temperature

Package Outline Dimensions (unit: mm)

SOT23



Mounting Pad Layout (unit: mm)

