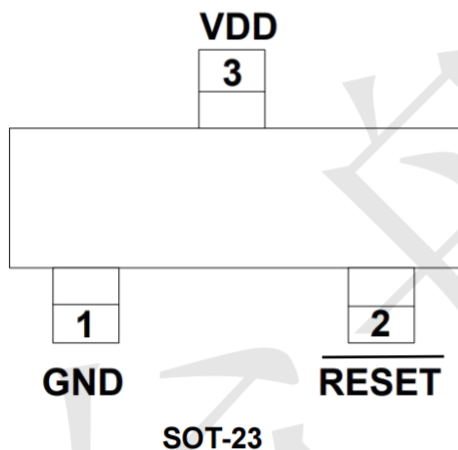


### Features

- 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 $\mu A$  Supply Current
- Available in One Output Configuration: Open-Drain Active-Low  $\overline{RESET}$  Output
- Packages SOT-23

### Pin Definition



### Applications

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

### Ordering Information

TPMIC803-31D3VM3

RESET VOLTAGE:

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

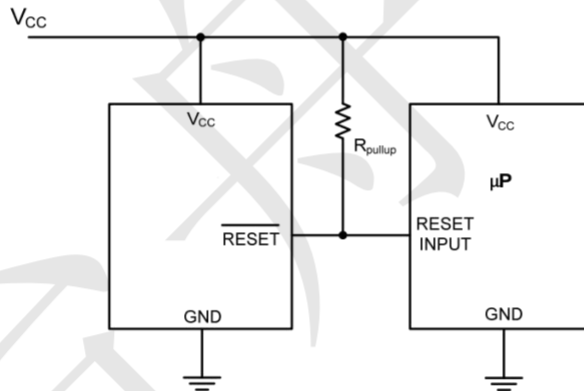
### PIN CONFIGURATION

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 .

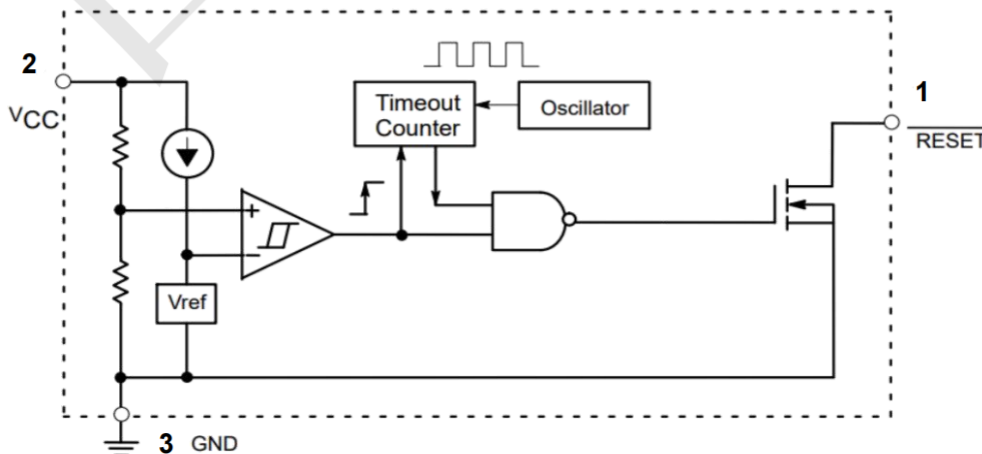
### Absolute Maximum Ratings

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/ $\mu$ 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
$R_{\theta JC}$	Thermal Resistance from Junction to Case	110	$^{\circ}$ C/W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	$^{\circ}$ C/W

### TYPICAL APPLICATION CIRCUIT



### FUNCTIONAL BLOCK DIAGRAM

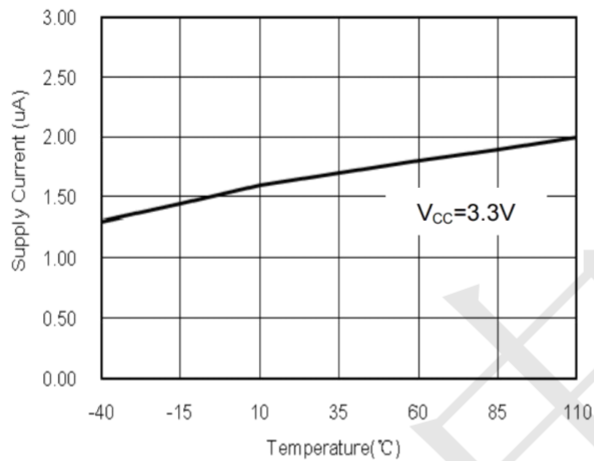


### Electrical Characteristics

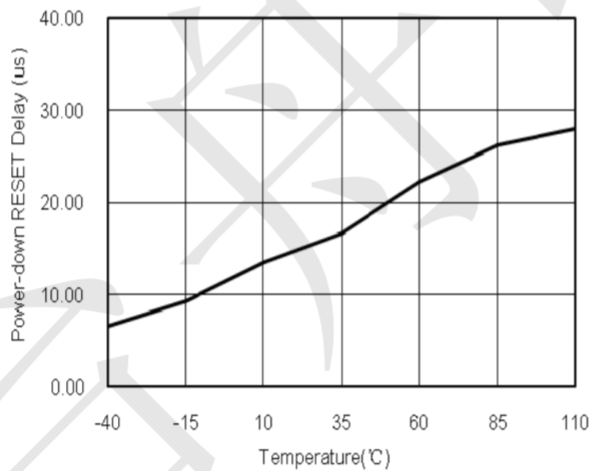
Symbol	Parameter	Conditions	MIN	Typ	MAX	UNIT	
VCC	Supply Voltage Range	TA=0°C to +70°C	1.0	--	5.5	V	
ICC	Supply Current		--	2.0	--	uA	
VTH	Reset Threshold	46 Version	TA=+25°C	4.56	4.63	4.70	V
			TA=-40°C to +85°C	4.50	--	4.75	
		44 Version	TA=+25°C	4.31	4.38	4.45	
			TA=-40°C to +85°C	4.25	--	4.50	
		40 Version	TA=+25°C	3.93	4.00	4.06	
			TA=-40°C to +85°C	3.89	--	4.10	
		31 Version	TA=+25°C	3.04	3.08	3.11	
			TA=-40°C to +85°C	3.00	--	3.15	
		29 Version	TA=+25°C	2.89	2.93	2.96	
			TA=-40°C to +85°C	2.85	--	3.00	
	26 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 (TA=+25°C, unless otherwise noted.)

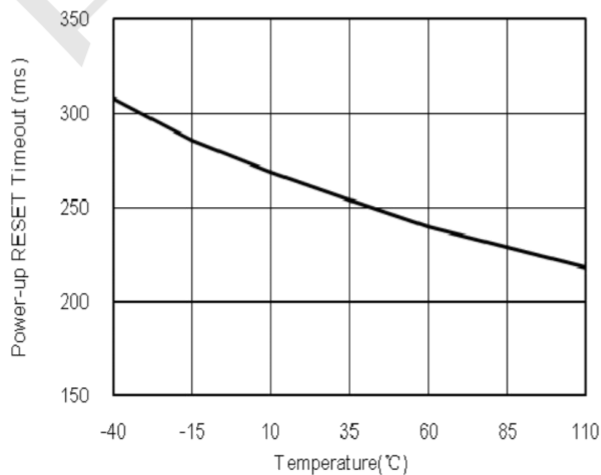
**Supply Current vs. Temperature**



**Power-Down RESET Delay vs. Temperature**

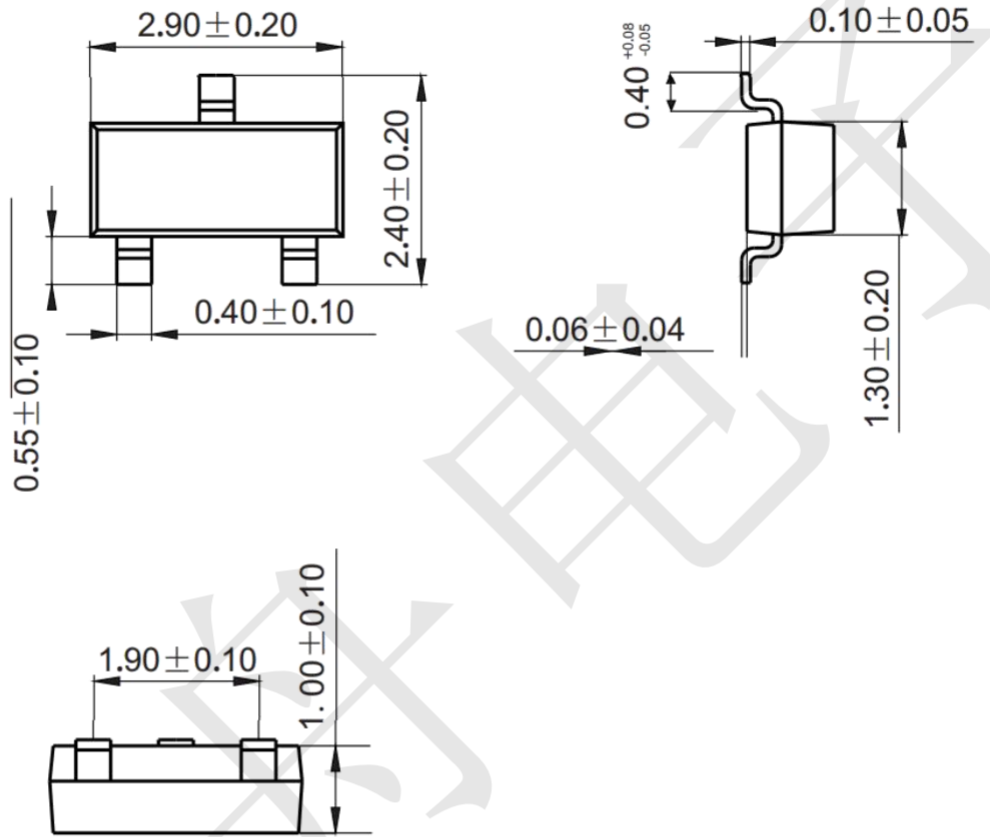


**Power-Up RESET Timeout vs. Temperature**



**Package Outline Dimensions (unit: mm)**

SOT-23



**Mounting Pad Layout (unit: mm)**

