GX709 Resistor-Programmable Temperature Switch

1 Features

- Threshold Accuracy:
  - ±0.5°C Typical
  - ±3°C Maximum (60°C to 100°C)
- Temperature Threshold Set By 1% External Resistor
- Low Quiescent Current: 33 µA Typical
- Open-Drain, Active-Low Output Stage
- Pin-Selectable 2°C or 10°C Hysteresis
- Reset Operation Specified at V_{CC} = 0.8 V
- Supply Range: 2.7 V to 5.5 V
- Package: 5-Pin SOT-23, 6-Pin DFN6L

2 Applications

- Computers (Laptops and Desktops)
- Servers
- Industrial and Medical Equipment
- Storage Area Networks
- Automotive

3 Description

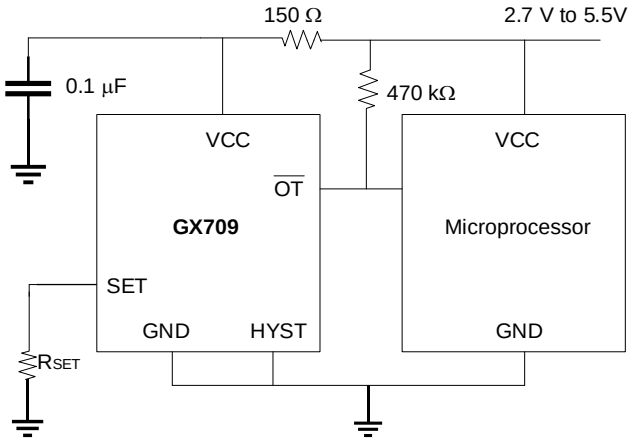
The GX709 is a fully-integrated, resistor-programmable temperature switch with a temperature threshold that is set by just one external resistor within the entire operating range. The TMP709 provides an open-drain, active-low output and has a 2.7V to 5.5V supply-voltage range.

The temperature threshold accuracy is typically ±0.5°C, with a maximum of ±3°C (60°C to 100°C). The quiescent current consumption is typically 33 µA. Hysteresis is pin-selectable to 2°C or 10°C.

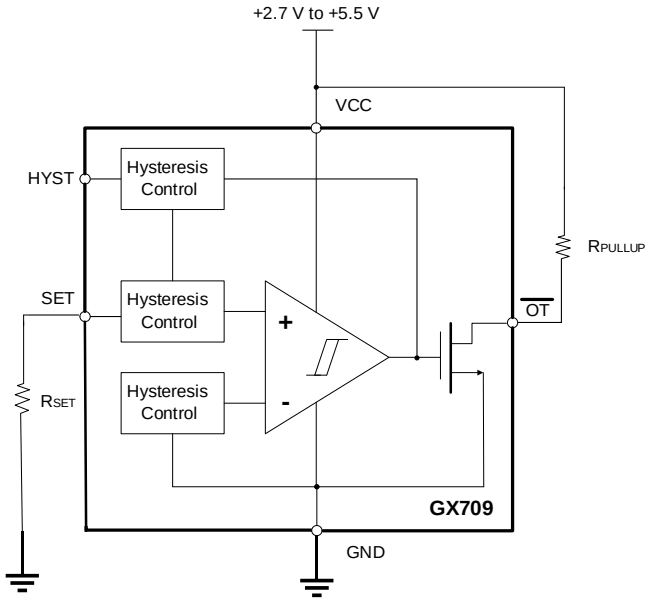
The GX709 is available in a 5-pin, SOT-23 package and 6-pin, DFN6L package

Device Information

PART NUMBER	PACKAGE	BODY SIZE (NOM)
GX709	Die	0.919 mm × 0.579 mm
GX709S	SOT23-5	2.80 mm × 1.60 mm
GX709D	DFN6L	1.5 mm ×1.5 mm



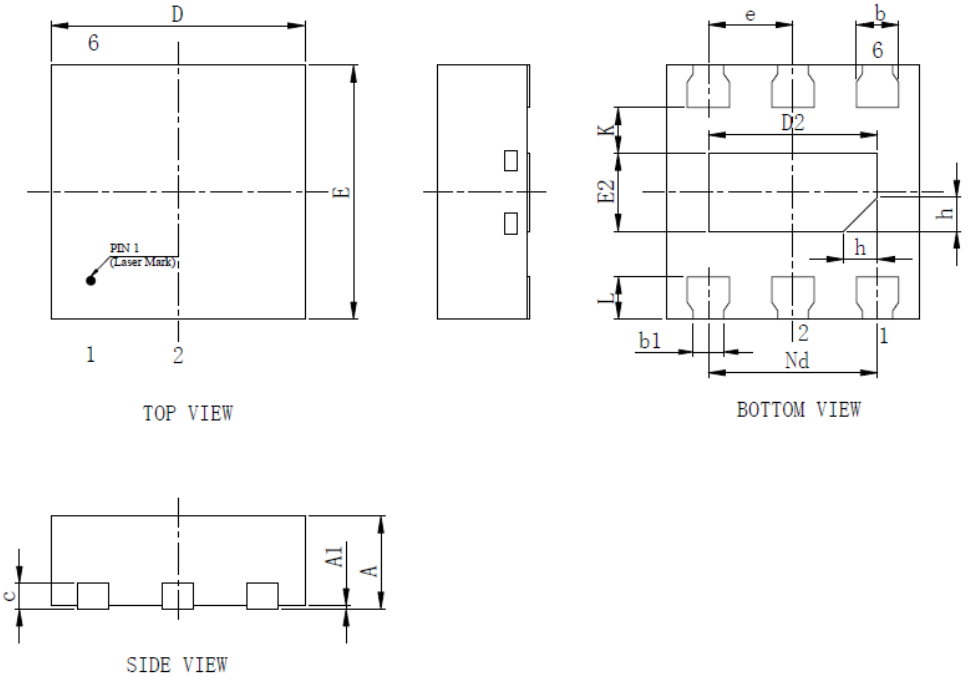
Typical Application



Functional Block Diagram

8 PACKAGING INFORMATION

DFN6L CHIP OUTLINE



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.50	0.55	0.60
A1	0	0.02	0.05
b	0.20	0.25	0.30
b1	0.18REF		
c	0.152REF		
D	1.45	1.50	1.55
D2	0.90	1.00	1.10
e	0.50BSC		
Nd	1.00BSC		
E	1.45	1.50	1.55
E2	0.36	0.46	0.56
L	0.20	0.25	0.30
h	0.15	0.20	0.25
K	0.27REF		

9 ORDER INFORMATION

DEVICE	CHIP	PAKAGE TYPE	SPQ	NOTE
GX709-T&R	GX709	Die	3000	Die, TAPE&REEL
GX709S-T&R	GX709	SOT23-5	3000	TAPE&REEL
GX709D-T&R	GX709	DFN6L	4000	TAPE&REEL