

GX1833

High-Accuracy Temperature Sensor With One-Wire

1 Features

- Low Cost Alternative to DS18B20
- Direct Replacement for NTC Thermistors
- Each Device Has a Unique 64-Bit RID
- Accury: $\pm 0.5^{\circ}\text{C}$
- Supply Range: 2.6V ~ 5.5V
- Temperate Range: $-55^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- Active Current: 40 μA
- Shutdown Current: 0.5 μA
- Resolution: 12 bits (0.0625°C)
- Interface: 1-Wire

2 Applications

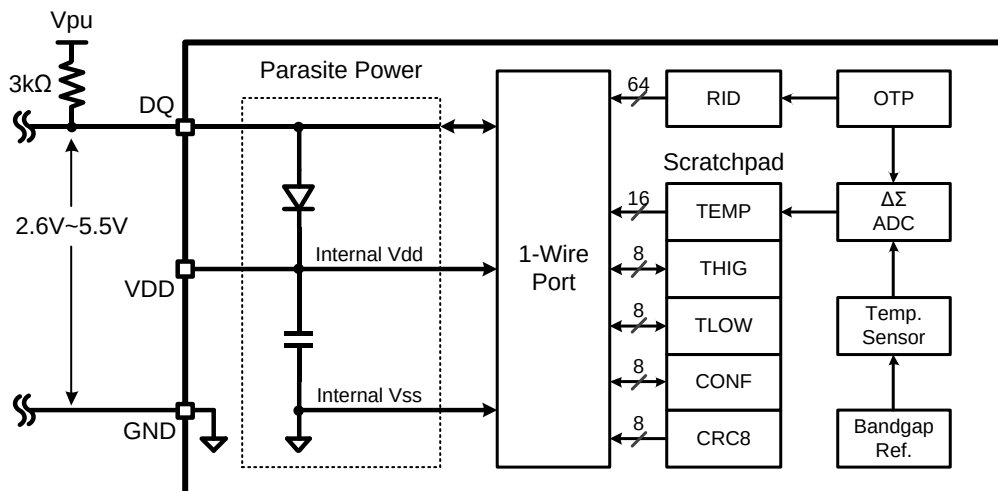
- Digital Output Wired Probes
- Industrial Control
- Cold-Chain Transportation
- Enterprise Servers

3 Description

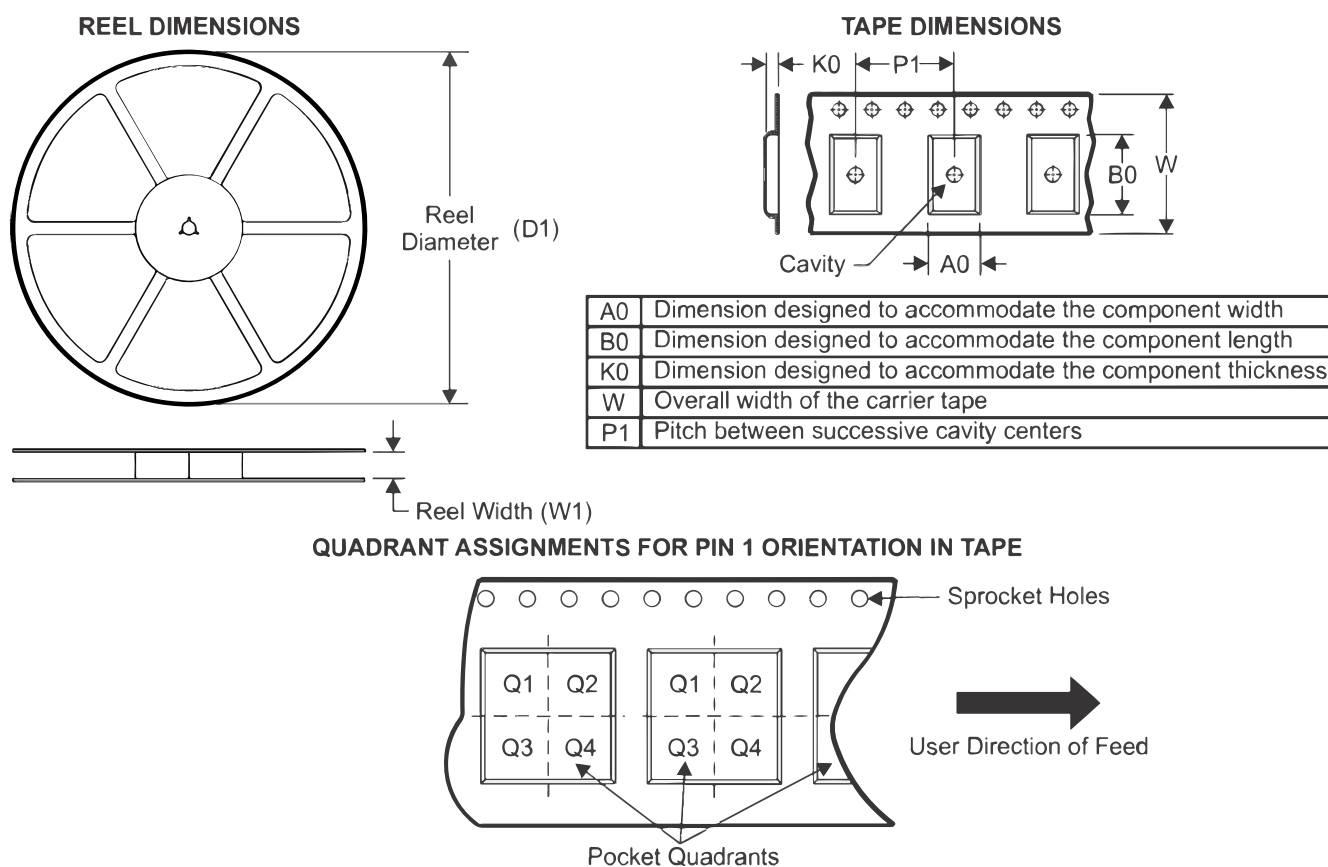
The GX1833 is a fully integrated digital temperature sensor that provides a 12-bit temperature result with a resolution of 0.0625°C and an accuracy of up to $\pm 0.5^{\circ}\text{C}$ with no calibration. The GX1833 is compatible with the one-wire interface and supports up to 32 devices on a single bus. The GX1833 can be easily used as a two wire digital temperature probe or as a direct replacement for NTC thermistors.

Device Information

PART NUMBER	PACKAGE	BODY SIZE
GX1833	TO-92 (3)	4.60 mm x 4.60
GX1833T	TO-92A (3)	4.60 mm x 4.60
GX1833S	TO-92S (3)	4.00 mm x 3.00
GX1833WS	TO-92S-2 (2)	4.00 mm x 3.00
GX1833D	DFN (2)	1.60 mm x 0.80
GX1833U	MSOP (8)	3.00 mm x 3.00
GX1833Z	SOP (8)	4.90 mm x 3.90



9.8 Tape and Reel Information



PACKAGE	D1 (mm)	W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	PIN1
DFN	180	8.6	1.00	1.80	0.62	4.00	8.00	Q1
MSOP	330	12.4	5.20	3.30	1.50	8.00	12.00	Q1
SOP	330	12.4	6.40	5.40	2.10	8.00	12.00	Q1

Note : all of the above dimensions are in millimeters.

10 Order Information

ORDER PN	DEVICE	PACKAGE	SPQ	REMARK
GX1833-Bu	GX1833	TO-92 (3)	2000	bulk
GX1833T-Bu	GX1833T	TO-92A (3)	2000	bulk
GX1833S-Bu	GX1833S	TO-92S (3)	2000	bulk
GX1833WS-Bu	GX1833WS	TO-92S-2 (2)	2000	bulk
GX1833D-T&R	GX1833D	DFN (2)	4000	tape and reel
GX1833U-T&R	GX1833U	MSOP (8)	4000	tape and reel
GX1833Z-T&R	GX1833Z	SOP (8)	4000	tape and reel