

CAT34TS02 ERRATA



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Errata

Power - Cycling Guidelines for the CAT34TS02/6095 with Device ID: 0x0812

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When the CAT34TS02/6095 (device ID: 0x0812) is power-cycled, and the power-down time is too short, the Temperature Sensor may not be properly initialized during power-up. While temperature recording can always be activated after power-up, other TS functions may be inhibited if certain Configuration register bits do not power-up cleared (see Configuration register description).

When the TS is powered up for the duration of system up-time, the down-time requirement is typically satisfied during system rest time, and therefore not a practical concern.

The power-down time required for proper TS initialization is a function of V_{CC} power-up ramp rate and power-down level. Characterization data reveals the following behavior at room temperature:

Power-Up Ramp Rate (V/ms)	Minimum Power-Down Time
10	> 0 ms
1	20 – 50 ms
0.1	200 – 500 ms
0.01	1 – 2 sec

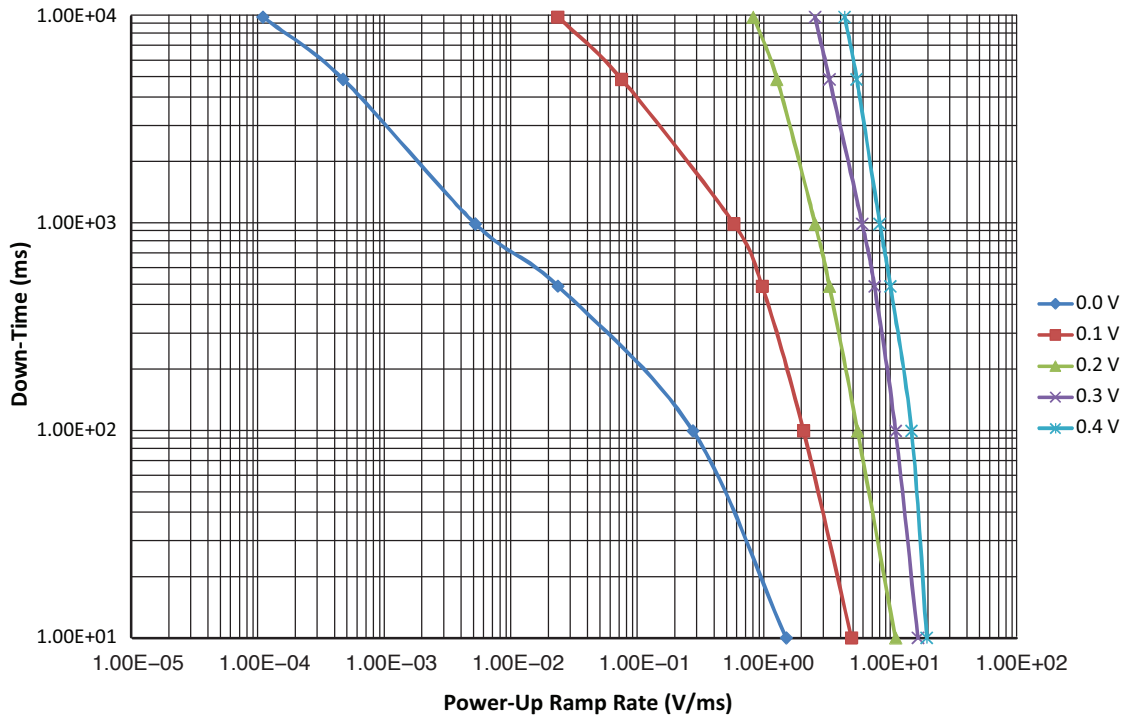
Less down-time is required at higher temperature, but considerably more is needed when not powering down all the way to GND level (as illustrated in the attached single device example).


If necessary, the minimum power-down time can also be determined “in situ” by running a power-cycling routine, whereby the down time is extended until a written Configuration register is eventually cleared following a long enough power-down period.

To prevent unpredictable behavior, it is nevertheless strongly recommended to avoid power-cycling this device during system up-time.

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CAT34TS02/6095 (Device ID: 0x0812) Minimum Down-Time for Effective TS Initialization (Parameter: Power-Down Voltage Level)



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