XC6135 Series
Ultra-low Power "44nA" Voltage Detector With Sensing Pin Separated

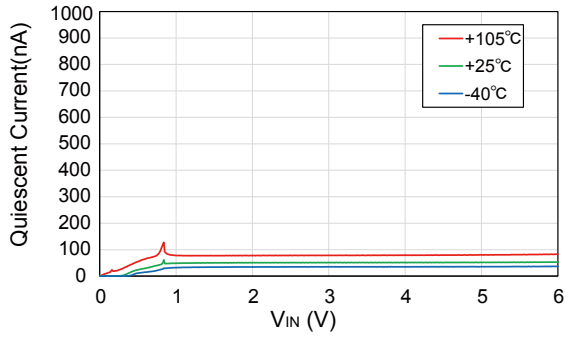
TOREX
New Product Leaflet

SALES POINT Nano Power Consumption・High Accuracy Eetection・Small Package !

Quiescent current of 44nA, among the lowest in the world!

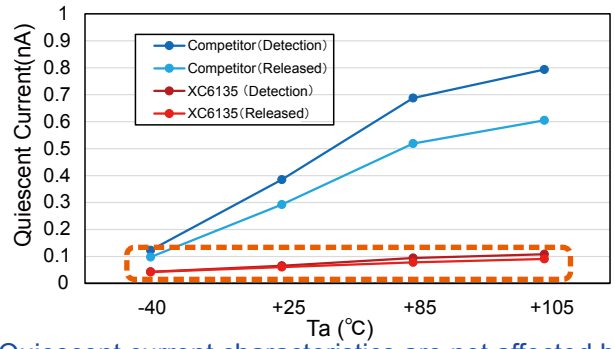
- Sense terminal separation prevents unstable operation and enables high-voltage detection.
- Ideal for IoT/energy harvesting applications, with a low detection voltage of 0.5V, and ultra-low consumption in a compact package.
- High-precision detection and smooth, low-quiescent current temperature characteristics.

Ultra-Low Power



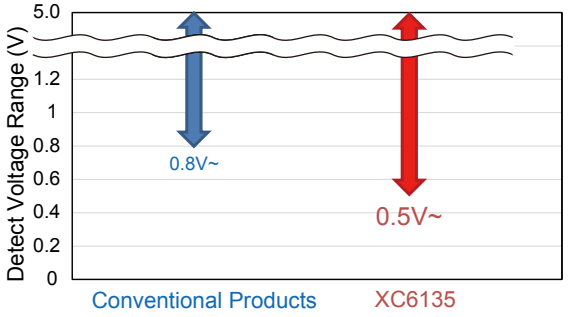
Lower quiescent current than ever achieved before allows support even for energy harvesting.

Smooth Temperature Characteristics



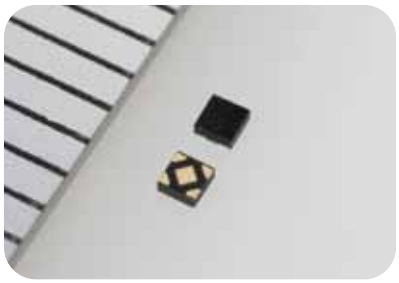
Quiescent current characteristics are not affected by ambient temperature.

0.5V Low Voltage Detection



Detectable voltage of 0.5V,
a level not found in any competitor products.

Ultra-compact Low-profile Packages



USPQ-4B05(1.0×1.0×h0.33mm)
Ultra-compact, low-profile package ideal for IoT devices.
Thin enough to be mounted on smart cards.

FEATURES			
Ultra-Low Power	44nA TYP. (Released V_{IN}=1.1V)	Detect Voltage Range	0.5V～5.0V (0.1V Step)
	53nA TYP. (Detection V_{IN}=1.1V)	Operating Voltage Range	1.1V～6.0V
High Accuracy	±10mV (0.5V≦V_{DF}≦1.1V, Ta=25℃)	Output Configuration	CMOS or Nch Open Drain
	±0.8% (1.2V≦V_{DF}≦3.0V, Ta=25℃)	Output logic	H level or L level at Detection
	±1.0% (3.1V≦V_{DF}≦5.0V, Ta=25℃)	Undefined Operation	Output Pin Voltage 0.38V (MAX: Ta=-40～+105℃)
	±30mV (0.5V≦V_{DF}≦1.1V, Ta=-40℃～+105℃)	Protect(CMOS)	@Input Pin Voltage＜Minimum Operation Voltage
	±2.5% (1.2V≦V_{DF}≦3.0V, Ta=-40℃～+105℃)	Packages	USPQ-4B05
	±2.7% (3.1V≦V_{DF}≦5.0V, Ta=-40℃～+105℃)		SSOT-24
Temperature Characteristics	±50ppm/℃		SOT-25
Hysteresis Width	TYPE A/C V_{DF}×5.0% (TYP.)、TYPE B/D 2～28mV (TYP.)	Environmentally Friendly	EU RoHS, Pb Free, H&A Free

RoHS Compliant
Halogen Antimony FREE