SIVI-BG180N100

TSMC 180nm-G (1P5M)

MAIN FEATURES

- Designed on TSMC 180nm Generic process
- V_{supply}: 2.0V → 3.6V
- Accuracy across PVT: ±8%
- Ultra-Low power consumption less than 100nA
- Good supply rejection
- Low noise performance
- Capability of trimming the output voltage
- Small IP area < 0.018mm²
- Operational temperature from -40C° to 125C°

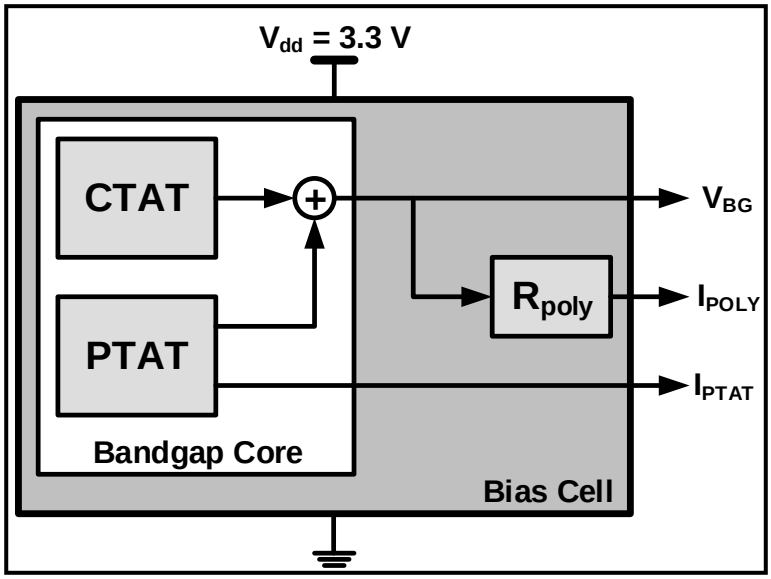
IP DESCRIPTION

SiVi-BG180n100 is an ultra-low current bandgap reference cell which consumes less the 0.1µA for operation. With its good accuracy and ultra-low current performance SiVi-BG180n100 is considered the optimum solution for low power SoC solutions

SiVi-BG180n200 is silicon verified on a Generic TSMC 180nm process.

ELECTRICAL SPECIFICATIONS

Spec / Result		Min	Typ	Max	Unit
Supply Voltage		2.0	3.0	3.6	V
Temperature Range		-40	27	125	°C
PSRR	@10kHz		-45		dB
	@1MHz		-25		
Integrated Noise (0.1Hz→10Hz)			25		µV
Temperature Coefficient	@T = -40°C	-250		-200	ppm/°C
	@T = 27°C	-35		-5	
	@T = 125°C	310		400	
Voltage Coefficient (2.0V →3.6V Vdd)		1.3		4.6	%/V
Startup time, CL=5pf			300		µs
Output Voltage		0.902	0.975	1.07	V
Current Consumption,			0.1	0.25	µA



SiVi-BG180n100 Block Diagram

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