

General Description

The constant current source BIAS_v1 provides a temperature and supply voltage independent sinking current of app. 2.5µA for internal biasing purposes.

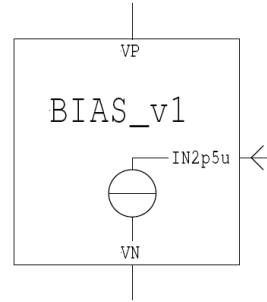
Ratings, Parameters and Conditions

| Parameter / Condition | Symbol | Min | Typ. | Max | Unit | Comment |
|----------------------------------|-------------|------|------|------|-------|---------|
| Electrical Parameters: | | | | | | |
| Supply Voltage | V_{dd} | 4.75 | 5 | 5.25 | V | |
| Supply Current | I_{dd} | 25 | 40 | 65 | µA | |
| Constant sinking current | I_{BIAS} | 1.86 | 2.2 | 2.75 | µA | |
| Temp. Coeff. I_{BIAS} | TC_{BIAS} | | | 300 | ppm/K | |
| Absolute Maximum Ratings: | | | | | | |
| Operating Temperature | T_{range} | -40 | | 120 | °C | |
| Supply Voltage | V_{dd} | -0.3 | | 7 | V | |
| Operating Conditions: | | | | | | |
| Ambient Temperature | T_{amb} | -20 | 27 | 80 | °C | |

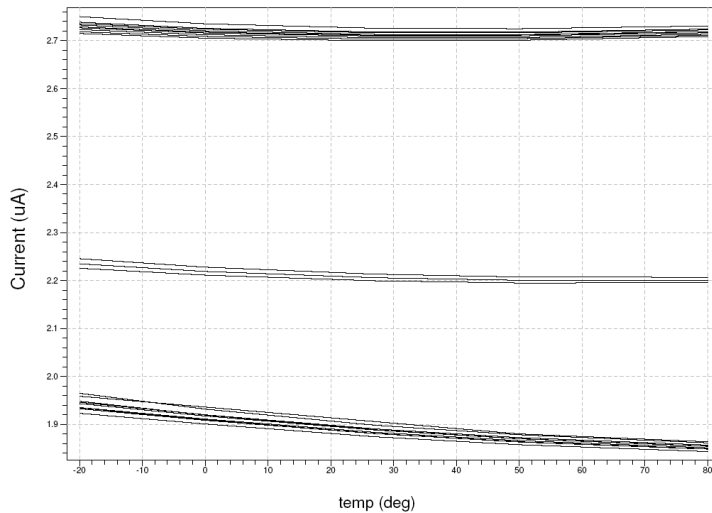
IO-Description

| Interface | I/O | Function | Comment |
|-----------|-------|--------------|---------|
| VP | InOut | supply | |
| VN | InOut | ground | |
| IN2p5u | InOut | Bias current | sinking |

Symbol



Simulation Results



Bias current versus temperature over processes and VDD = 4.75 / 5 / 5.25 V

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