

ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change.

8/97

MAXIM

Low-Noise, Low-Dropout, 150mA Linear Regulators with '2982 Pinout

General Description

The MAX8877/MAX8878 low-noise, low-dropout linear regulators operate from a 2.5V to 5.5V input and deliver up to 150mA. These devices are pin compatible with the industry-standard '2982 and have better dropout voltage. Typical output noise is 30 μ V_{RMS}. The output voltage is preset to common voltages from 2.5V to 5.0V in 100mV increments. Typical dropout is 110mV at 100mA. These devices are pin compatible with the MAX8873/MAX8874.

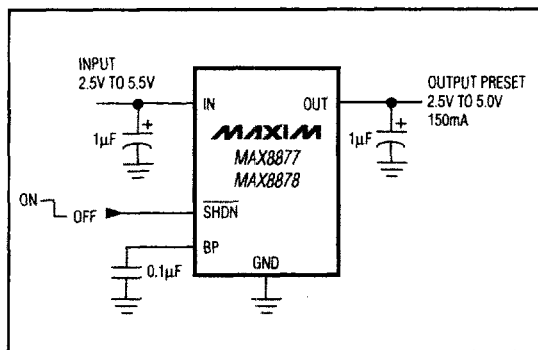
The MAX8877/MAX8878 use an internal P-channel MOSFET pass transistor, which keeps the supply current at a low 90 μ A, independent of the load current and dropout voltage.

Other features include a 1 μ A logic-controlled shutdown, short-circuit and thermal-shutdown protection, and reverse battery protection. The MAX8878 also includes an auto-discharge function, which actively discharges output voltage to ground when the device is placed in shutdown. Both devices come in a miniature 5-pin SOT-23 package.

Applications

Cellular Telephones
Cordless Telephones
PCS Telephones
PCMCIA Cards
Modems
Hand-Held Instruments
Palmtop Computers
Electronic Planners

Typical Operating Circuit



Features

- ◆ Pin Compatible with the MAX8873/MAX8874 and '2982
- ◆ Low 30 μ V_{RMS} Output Noise
- ◆ Low 110mV Dropout at 100mA Output (165mV at 150mA Output)
- ◆ Low 90 μ A Operating Supply Current, Independent of Output Current and Dropout
- ◆ Thermal-Overload and Short-Circuit Protection
- ◆ Reverse Battery Protection
- ◆ Output Current Limit
- ◆ Preset Output Voltages (\pm 3.5%)
- ◆ 1 μ A Logic-Controlled Shutdown

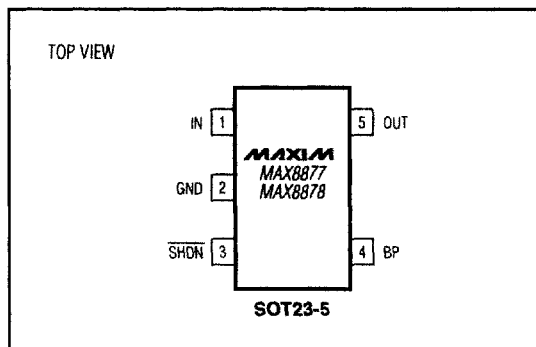
Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE
MAX8877C/DXX	0°C to +70°C	Dice*
MAX8877EUKXX-T	-40°C to +85°C	5 SOT23-5
MAX8878C/DXX	0°C to +70°C	Dice*
MAX8878EUKXX-T	-40°C to +85°C	5 SOT23-5

NOTE: XX is the output voltage specification.

* Contact factory for dice specifications.

Pin Configuration



MAX8877/MAX8878

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For small orders, phone 408-737-7600 ext. 3468.