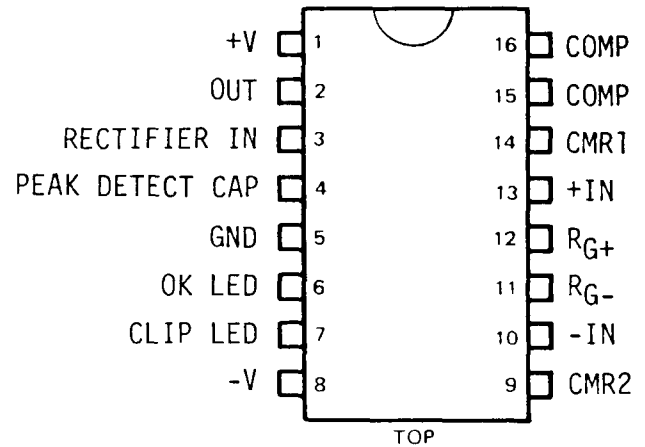


SSM 2011 - MICROPHONE PREAMPLIFIER/LEVEL DETECTOR

The SSM 2011 is an ultra low noise preamplifier primarily intended for high quality audio systems. The input stage uses optimized biasing and geometries to yield a 2.4nV per root hertz voltage noise and a 110dB common mode rejection ratio over a +5V input range. A single compensation capacitor provides a 200MHz gain bandwidth product (G=1000) and a 200kHz full power bandwidth at G=10. The level detector section consists of a precision rectifier, two internally biased comparators, and two LED drivers. One LED output lights at 3dB below a 5V peak output level while the other lights only when the signal is within ±10dB of nominal output level.

FEATURES:

- \* 2.4nV/ $\sqrt{\text{Hz}}$  equivalent input noise
- \* 100kHz full power bandwidth @ 60dB gain
- \* 110dB common mode rejection
- \* Input stage immune to RF interference
- \* On-chip full wave rectifier/peak detector
- \* LED driver output to indicate clipping and proper level.
- \* Low cost
- \* Minimum external components required



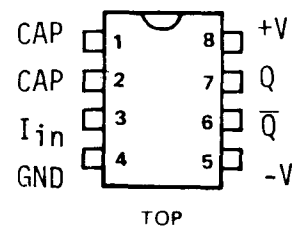
Pin Diagram

SSM 2031 - HIGH FREQUENCY OSCILLATOR/VOLTAGE TO FREQUENCY CONVERTER

The SSM 2031 is a high frequency oscillator/V to F converter with a wide sweep range, high linearity and temperature stability. The device has a minimum 10,000 to 1 sweep range from +15V supplies and has a 20ppm/degree C temperature stability figure. Complementary outputs are provided for two phase clocking applications. The 2031 is packaged in an 8-pin minidip and requires only one external resistor and capacitor for basic operation.

FEATURES:

- \* 0.001Hz to 10MHz operation
- \* 0.05% Linearity to 3MHz
- \* 8-pin mini-DIP package
- \* Minimum external component count
- \* Low cost
- \* Complementary outputs: Q,  $\bar{Q}$
- \* 20ppm/degree C stability



Pin Diagram