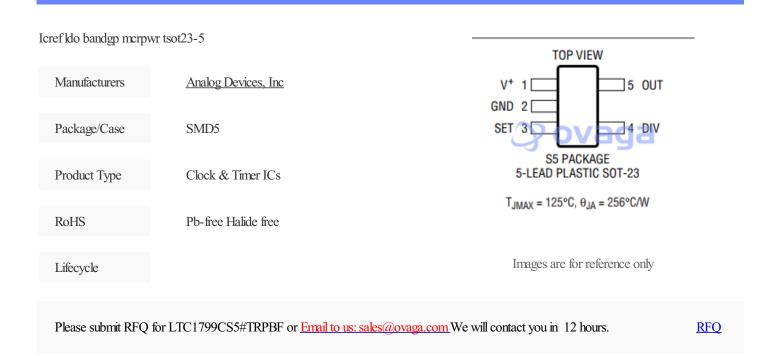


LTC1799CS5#TRPBF

Data Sheet



General Description

The LTC1799 is a precision oscillator that is easy to use and occupies very little PC board space. The oscillator frequency is programmed by a single external resistor (RSET). The LTC1799 has been designed for high accuracy operation (\leq 1.5% frequency error) without the need for external trim components.

The LTC1799 operates with a single 2.7V to 5.5V power supply and provides a rail-to-rail, 50% duty cycle square wave output. The CMOS output driver ensures fast rise/fall times and rail-to-rail switching. The frequency-setting resistor can vary from 3k to 1M to select a master oscillator frequency between 100kHz and 33MHz (5V supply). The three-state DIV input determines whether the master clock is divided by 1, 10 or 100 before driving the output, providing three frequency ranges spanning 1kHz to 33MHz (5V supply). The LTC1799 features a proprietary feedback loop that linearizes the relationship between RSET and frequency, eliminating the need for tables to calculate frequency.

Features

One External Resistor Sets the Frequency

Fast Start-Up Time: <1ms

1kHz to 33MHz Frequency Range

Frequency Error ≤1.5% 5kHz to 20MHz>

Frequency Error \leq 2% 5kHz to 20MHz>

0.05%/V Supply Stability

 $50\% \pm 1\%$ Duty Cycle 1kHz to 2MHz

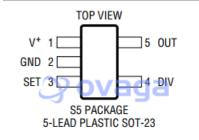
 $50\% \pm 5\%$ Duty Cycle 2MHz to 20MHz

1mA Typical Supply Current

 100Ω CMOS Output Driver

Operates from a Single 2.7V to 5.5V Supply

Low Profile (1mm) SOT-23 (ThinSOTTM Package)



 $T_{JMAX} = 125$ °C, $\theta_{JA} = 256$ °C/W

Application

Low Cost Precision Oscillator

Charge Pump Driver

Switching Power Supply Clock Reference

Clocking Switched Capacitor Filters

Fixed Crystal Oscillator Replacement

Ceramic Oscillator Replacement

Small Footprint Replacement for Econ Oscillators

Related Products



LTC6957HMS-3#PBF
Analog Devices, Inc

MSOP-12



LTC1799CS5#TRMPBF

Analog Devices, Inc TSOT23 DIV 20 PN-3-0 OUT1 40 OUT2 50 MS PACKAGE 10-LEAD PLASTIC MSOP TABLES 150°C, 9₂₈ - 250°CW

LTC6994IS6-2#TRMPBF

Analog Devices, Inc SOT-6



Analog Devices, Inc MSOP10



LTC6906CS6#TRMPBF

Analog Devices, Inc SOT23



LTC6906CS6

Analog Devices, Inc
SOT-23



LTC1799IS5

Analog Devices, Inc
SOT23-5



LTC6904CMS8

Analog Devices, Inc
MSOP-8