

LTC2055IMS8#PBF

Data Sheet

LINEAR TECHNOLOGY LTC2055IMS8#PBF Operational Amplifier, Dual, 2 Amplifier, 500kHz, 0.5V/µs, 2.7V to 6V, MSOP, 8Pins

Manufacturers <u>Analog Devices, Inc</u>

Package/Case MSOP8

Product Type Amplifier ICs

RoHS Pb-free Halide free

Lifecycle



Images are for reference only

Please submit RFQ for LTC2055IMS8#PBF or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

General Description

The LTC2054/LTC2055 are low power, low noise, single/dual, zero-drift operational amplifiers with an extended temperature version (LTC2054MP) that has guaranteed specifications from –55°C to 150°C. They are available in SOT-23 (ThinSOTTM) and MS8 packages. For space limited applications, the LTC2055 is also available in a 3mm × 3mm × 0.8mm dual fine pitch leadless package (DFN). They operate from a single 2.7V minimum supply and support \pm 5V applications. The current consumption is typically 150 μ A for the LTC2054 and 130 μ A/amp for the LTC2055.

The LTC2054/LTC2055, despite their miniature size, feature uncompromising DC performance. The maximum input offset voltage and offset drift are $3.0\mu V$ and $30nV/^{\circ}C$ over the $-40^{\circ}C$ to $85^{\circ}C$ industrial temperature range. The almost zero DC offset and drift are supported with a power supply rejection ratio (PSRR) and common mode rejection ratio (CMRR) of 130dB (typ).

The input common mode voltage ranges from the negative supply up to typically 0.5V below the positive supply. The open-loop gain is typically 140dB. The LTC2054/LTC2055 also feature a $1.6\mu VP$ -P DC to 10Hz noise and a 500kHz gain-bandwidth product.

Features

Supply Current 150µA (Max per Amplifier)Guaranteed from -40°C to 85°C

Offset Voltage 3µV (Max, -40°C to 85°C)

Offset Voltage Drift 30nV/°C (Max, -40°C to 85°C)

Common Mode Input Range from V- to V+-0.5V

Output Swings Rail-to-Rail

Voltage Gain: 140dB (Typ)

PSRR and CMRR: 130dB (Typ)

Input Bias Current: 1pA (Typ, 25°C)

Noise: 1.6µVP-P (0.01Hz to 10Hz Typ)

Supply Operation:

2.7V to 6V (LTC2054/LTC2055)

2.7V to ±5.5V (LTC2054HV/LTC2055HV)

Low Profile (1mm) SOT-23, MS8 and3mm × 3mm × 0.8mm DFN Packages

Application

Thermocouple Amplifiers

Electronic Scales

Medical Instrumentation

Strain Gauge Amplifiers

High Resolution Data Acquisition

DC Accurate RC Active Filters

Low Side Current Sense

Battery-Powered Systems

Related Products



LTC1151CSW#PBF

Analog Devices, Inc

SOIC-16



LTC2053CMS8

Analog Devices, Inc

MSOP8



LT1491ACS

Analog Devices, Inc

SOP14



LTC1150CS8

Analog Devices, Inc

SOP8



LT1498CS8

Analog Devices, Inc

SOP-8



LTC1150CN8

Analog Devices, Inc

DIP8



LT6105IMS8

Analog Devices, Inc

MSOP-8



LT1013CN8

Analog Devices, Inc

DIP-8