ADUM3190SRQZ

Data Sheet

Isolation Amplifier, High Stability Error, 2 Amplifier, 2.5 kV, 3V to 20V, QSOP, 16 Pins

Manufacturers	Analog Devices, Inc
Package/Case	QSOP-16
Product Type	Amplifier ICs
RoHS	Green
Lifecycle	

Images are for reference only

Please submit RFQ for ADUM3190SRQZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADuM3190 is an isolated error amplifier based on Analog Devices, Inc., iCoupler® technology. The ADuM3190 is ideal forlinear feedback power supplies. The primary side controllers ofthe ADuM3190 enable improvements in transient response,power density, and stability as compared to commonly usedoptocoupler and shunt regulator solutions.

Unlike optocoupler-based solutions, which have an uncertaincurrent transfer ratio over lifetime and at high temperatures, theADuM3190 transfer function does not change over its lifetime,and it is stable over a wide temperature range of −40°C to +125°C.

Included in the ADuM3190 is a wideband operational amplifierfor a variety of commonly used power supply loop compensationtechniques. The ADuM3190 is fast enough to allow a feedbackloop to react to fast transient conditions and overcurrent conditions.Also included is a high accuracy 1.225 V reference tocompare with the supply output setpoint.

The ADuM3190 is packaged in a small 16-lead QSOP packagefor a 2.5 kV rms isolation voltage rating.

Features

Stability in isolated feedback applications

0.5% initial accuracy

1% accuracy over the full temperature range

Compatible with Type II or Type III compensation networks

Reference voltage: 1.225 V

Compatible with DOSA

Low power operation: <7 mA total

Wide voltage supply range

VDD1: 3 V to 20 V

VDD2: 3 V to 20 V

Bandwidth: 400 kHz

Isolation voltage: 2.5 kV rms

Safety and regulatory approvals

UL recognition: 2500 V rms for 1 minute per UL 1577

CSA Component Acceptance Notice 5A

VDE certificate of conformityDIN V VDE V 0884-10 (VDE V>

Wide temperature range−40°C to +125°C ambient operation

150°C maximum junction temperature

Qualified for automotive applications

Application

Linear power supplies

Inverters

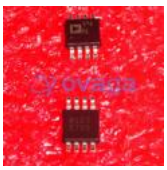
Uninterruptible Power Supply (UPS)

DOSA-compatible modules

Voltage monitors

Automotive systems

Related Products



AD8418BRMZ-RL

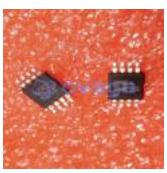
Analog Devices, Inc

MSOP-8

ADA4528-2ARMZ-R7

Analog Devices, Inc

MSOP-8



ADA4084-2ARMZ

Analog Devices, Inc

MSOP-8

AD8062ARMZ

Analog Devices, Inc

MSOP8

AD8567ARUZ

Analog Devices, Inc

TSSOP-14

AD8628AUJZ

Analog Devices, Inc

SOP23

AD8022ARMZ

Analog Devices, Inc

MSOP-8

AD8041AR

Analog Devices, Inc

SOP-8