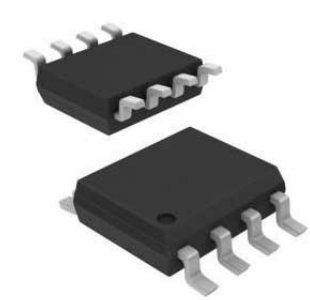
AMC1200STDUBRQ1

SP Amp DIFF AMP Single 5.5V Automotive 8-Pin SOP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	SOP8
Product Type:	Amplifier ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The AMC1200-Q1 is a precision isolation amplifier with the output separated from the input circuitry by a silicon dioxide (SiO_2) barrier that is highly resistant to magnetic interference. This barrier is certified to provide galvanic isolation of up to 4250 V_{PEAK} according to UL1577 and VDE V 0884-10. Used in conjunction with isolated power supplies, this device prevents noise currents on a high common-mode voltage line from entering the local ground and interfering with or damaging sensitive circuitry.

The input of the AMC1200-Q1 is optimized for direct connection to shunt resistors or other low-voltage level signal sources. The performance of the device supports accurate current control, resulting in systemlevel power saving and (especially in motor-control applications) lower torque ripple. The common-mode voltage of the output signal is automatically adjusted to either the 3-V or 5-V low-side supply.

The AMC1200-Q1 is available in a wide-body, 8-pin SOIC package (DWV) and a gullwing, 8-pin SOP package (DUB).

Key Features

Qualified for Automotive Applications

AEC-Q100 Qualified With the Following Results:
Temperature Grade 2: –40°C to 105°C

HBM ESD Classification Level H2

CDM ESD Classification Level C3B

±250-mV Input Voltage Range Optimized for
Shunt Resistors

Very Low Nonlinearity: 0.075% (max)
with 5-V High-Side Supply

Low Offset Error: 1.5 mV (max)

Low Noise: 3.1 m_{VRMS} (typical)

Low High-Side Supply Current:
8 mA (max) at 5 V

Input Bandwidth: 60 kHz (min)

Fixed Gain: 8 (0.5% accuracy)

High Common-Mode Rejection Ratio:
108 dB (typical)

3.3-V Operation on Low-Side

Certified Galvanic Isolation:
UL1577 and VDE V 0884-10 Approved

Isolation Voltage: 4250 VPEAK

Working Voltage: 1200 VPEAK

Transient Immunity: 10 kV/\xECs (min)

Typical 10-Year Lifespan at Rated Working
Voltage (see Application Report, SLLA197

Recommended For You

INA101AM

Texas Instruments, Inc

CAN10

LM339AM

Texas Instruments, Inc

SOP14

SHC298AM

Texas Instruments, Inc

CAN8

AMC1300BQDWVRQ1

Texas Instruments, Inc

SOIC-8

AMC1200TDWVRQ1

Texas Instruments, Inc

SOP8

LM319AM

Texas Instruments, Inc

SOP14

LM319AM/NOPB

Texas Instruments, Inc

SOP

AMC3330QDWERQ1

Texas Instruments, Inc

SOP16

AMC1411QDWLRQ1

Texas Instruments, Inc

SOP8

AMC1202DWVR

Texas Instruments, Inc

SOP8

AMC1211AQDWVQ1

Texas Instruments, Inc

SOIC-8

AMC1211AQDWVRQ1

Texas Instruments, Inc

SOIC8

AMC1302QDWVRQ1

Texas Instruments, Inc

SOIC-8

AMC1302QDWVQ1

Texas Instruments, Inc

SOIC8

AMC1311QDWVRQ1

Texas Instruments, Inc

SOIC-8