

Op Amp Single Low Offset Voltage Amplifier R-R I/O 5.5V Automotive 5-Pin SOT-23 T/R

Manufacturer:	Texas Instruments, Inc	OPA365AQDBVRQ1 Image
Package/Case:	SOT23-5	Images are for reference only
Product Type:	Amplifier ICs	Inquiry
RoHS:	RoHS Compliant/Lead free 	
Lifecycle:	Active	

General Description

The OPAx365-Q1 zero-crossover family, rail-to-rail, high-performance, CMOS operational amplifiers are optimized for very low voltage, single-supply applications. Rail-to-rail input/output, low noise ($4.5 \text{ nV}/\sqrt{\text{Hz}}$) and high speed operation (50-MHz gain bandwidth) make these devices ideal for driving sampling data converters (such as the ADS7822-Q1 or the ADS1115-Q1), specifically in short to mid-range radar applications. The OPAx356-Q1 family of operational amplifiers are also well-suited for HEV/EV and Powertrain applications in DC-DC converters and as transmission control in engine control units. Special features include an excellent common-mode rejection ratio (CMRR), no input stage crossover distortion, high input impedance, and rail-to-rail input and output swing. The input common-mode range includes both the negative and positive supplies. The output voltage swing is within 10 mV of the rails. The OPA365-Q1 (single version) is available in the 5-pin SOT-23 package. The OPA2365-Q1 (dual version) is available in the 8-pin SOIC package. All versions are specified for operation from 40°C to 125°C. Single and dual versions have identical specifications for maximum design flexibility.

Key Features

Qualified for Automotive Applications

AEC-Q100 Qualified with the Following Results:

Device Temperature Grade 1: -40°C to 125°C Ambient Operating Temperature Range

Device HBM ESD Classification Level H2

Device CDM ESD Classification Level C3B

OPA2365-Q1 Functional Safety-Capable:

Documentation Available to Aid Functional Safety System Design

Gain Bandwidth: 50 MHz

Zero-Crossover Distortion Topology

Excellent THD+N: 0.0004%

CMRR: 100 dB (Minimum)

Rail-to-Rail Input and Output

Input 100 mV Beyond Supply Rail

Low Noise: $4.5\text{ nV}/\sqrt{\text{Hz}}$ at 100 kHz

Slew Rate: 25 V/ μs

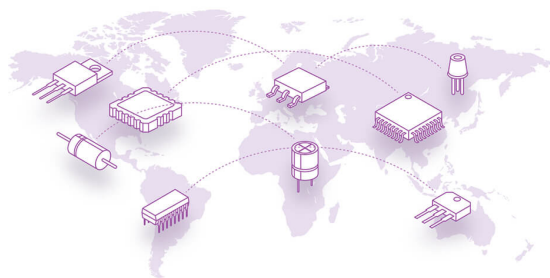
Fast Settling: 0.3 μs to 0.01%

Precision

Low Offset: 100 μV

Low Input Bias Current: 0.2 pA

2.2-V to 5.5-V Operation



Recommended For You

AVAQ SEMICONDUCTOR CO., LIMITED

Email: sales@avaq.com

OPA445BM

Texas Instruments, Inc
CAN

OPA1611AIDR

Texas Instruments, Inc
SOP8

OPA388QDBVRQ1

Texas Instruments, Inc
SOT23-5

OPA2365AQDRQ1

Texas Instruments, Inc
SOP8

OPA334AIDBVR

Texas Instruments, Inc
SOT23-6

OPA2835IDGSR

Texas Instruments, Inc
MSOP10

OPA656U

Texas Instruments, Inc
SOP8

OPA360AIDCKR

Texas Instruments, Inc
SC70-6

LMI11H/NOPB

Texas Instruments, Inc
CAN8

OPA353UA

Texas Instruments, Inc
SOP8

LMI3700MX/NOPB

Texas Instruments, Inc
SOP16

OPA633KP

Texas Instruments, Inc
DIP8

OPA453FAKTWT

Texas Instruments, Inc
TO263-7

OPA4251UA

Texas Instruments, Inc
SOP14

LMV321M5X/NOPB

Texas Instruments, Inc
SOT23-5