

## FEATURES

- HIGH GAIN BANDWIDTH: 1.2MHz
- INPUT OFFSET VOLTAGE:  $\pm 1.5\text{mV}$  (Max at 25°C)
- QUIESCENT CURRENT: 100uA/Amp
- Rail to Rail Output
- Common-Mode Input Voltage Range Include Ground
- Supply Range: +3V to +36V
- SPECIFIED UP TO +125°C
- *Micro* SIZE PACKAGES: SOT23-5

## APPLICATIONS

- SENSORS
- PHOTODIODE AMPLIFICATION
- ACTIVE FILTERS
- TEST EQUIPMENT
- DRIVING A/D CONVERTERS

## DESCRIPTION

The TCS941X families of products offer high voltage (36V) operation and rail-to-rail output, as well as excellent speed/power consumption ratio, providing an excellent bandwidth (1.2MHz) and slew rate of 0.67V/us. The op-amps are unity gain stable and feature an ultra-low input bias current.

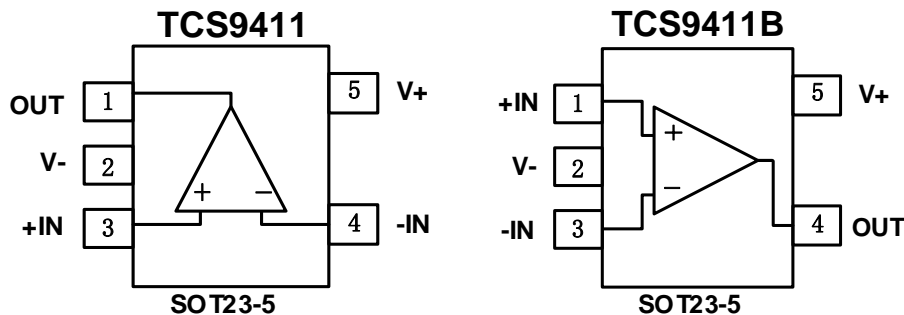
The devices are stable at capacitance up to 300pF. The input can operate normally within 100mV below of the negative power rail to 2V below of the positive power rail. The TCS941X families of operational amplifiers are specified at the full temperature range of -40°C to +125°C under single power supplies of 3V to 36V or dual power supplies of  $\pm 1.5\text{V}$  to  $\pm 18\text{V}$ .

### Device Information <sup>(1)</sup>

PART NUMBER	PACKAGE	BODY SIZE(NOM)
TCS9411_E	SOT23-5	2.90mm x 1.60mm
TCS9412_SH	SOIC-8	4.90mm x 3.90mm
TCS9412_MH	MSOP-8	3.00mm x 3.00mm
TCS9414_SN	SOIC-14	8.65mm x 3.90mm
TCS9414_TSN	TSSOP-14	5.00mm x 4.40mm

(1) For all available packages, see the orderable addendum at the end of the data sheet.

## Pin Configuration and Functions (Top View)



## Pin Description

NAME	PIN		I/O	DESCRIPTION
	TCS9411	RTCS9411B		
+IN	3	1	I	Positive (noninverting) input
V-	2	2	-	Negative (lowest) power supply or ground (for single supply operation)
-IN	4	3	I	Negative (inverting) input
OUT	1	4	O	Output
V+	5	5	-	Positive (highest) power supply