

# UTC 3414 LINEAR INTEGRATED CIRCUIT

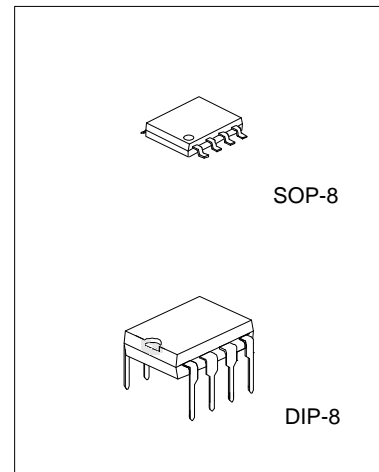
## SINGLE-SUPPLY DUAL HIGH CURRENT OPERATIONAL AMPLIFIER

### DESCRIPTION

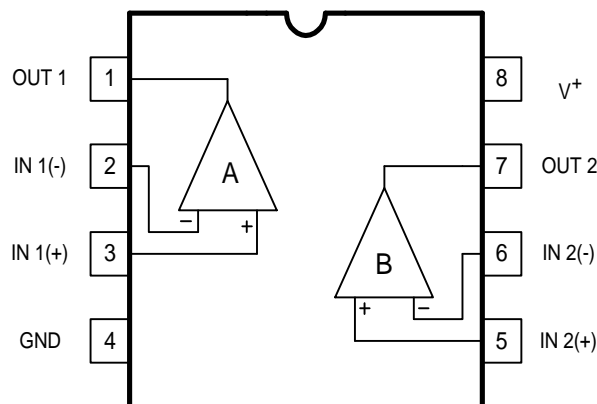
The UTC 3414 integrated circuit is a high gain, high output current, high output voltage swing dual operational amplifier capable of driving 70mA.

### FEATURES

- \*Single Supply
- \*Operating Voltage (+3V~+15V)
- \*High Output Current (70mA)
- \*Slew Rate (1.0V/ $\mu$ s typ.)
- \*Bipolar Technology



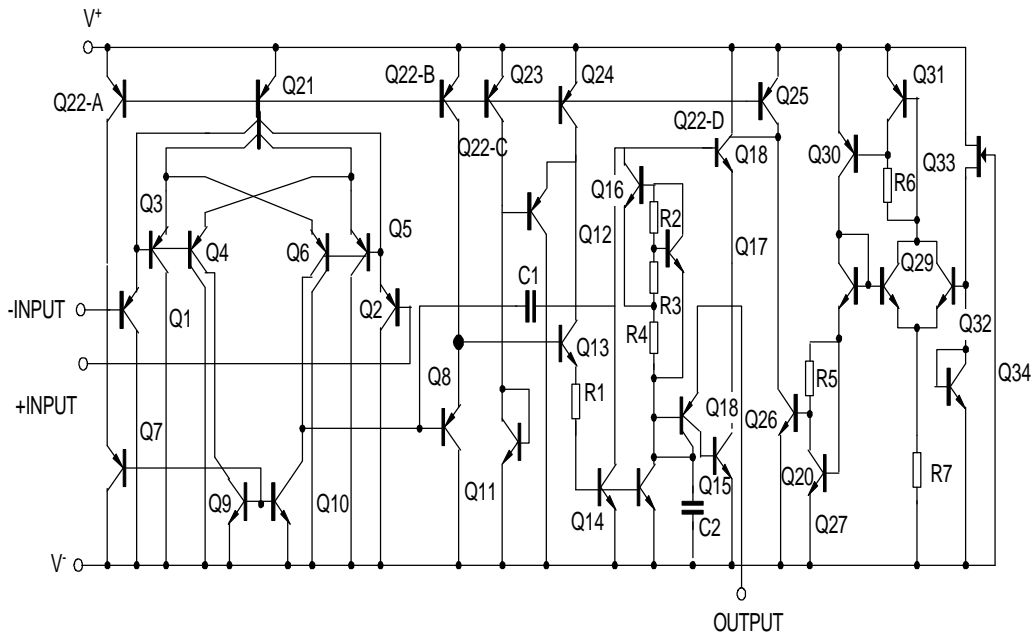
### PIN CONFIGURATIONS



# UTC3414

# LINEAR INTEGRATED CIRCUIT

## BLOCK DIAGRAM



### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V+(V+/V-)	15V (or +-7.5)	V
Differential Input Voltage	V <sub>ID</sub>	15	V
Input Voltage	V <sub>I</sub>	-0.3 ~ +15	V
Power Dissipation	P <sub>D</sub>	300	mW
Operating Temperature	T <sub>opr</sub>	-20 to +75	°C
Storage Temperature	T <sub>stg</sub>	-40 to +125	°C

### ELECTRICAL CHARACTERISTICS(Ta=25°C, V<sup>+</sup>=8.6V)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Offset Voltage	V <sub>IO</sub>	R <sub>s</sub> =0Ω		2	5	mV
Input Offset Current	I <sub>IO</sub>			5	100	nA
Input Bias Current	I <sub>b</sub>			100	500	nA
Large Signal Voltage Gain	A <sub>v</sub>	R <sub>L</sub> =2kΩ	88	100		dB
Input Common Voltage Range	V <sub>ICM</sub>		V <sup>+</sup> -2			V
Maximum Output Voltage Swing 1	V <sub>OM1</sub>	R <sub>L</sub> ≥2kΩ, V <sup>+</sup> =5V	3.5			V
Maximum Output Voltage Swing 2	V <sub>OM2</sub>	I <sub>o</sub> =70mA, V <sup>+</sup> =5V	3.2			V
Common Mode Rejection Ratio	CMR		80	90		dB

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UNISONIC TECHNOLOGIES CO., LTD.

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QW-R105-009,B

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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage Rejection Ratio	SVR		80	90		dB
Operating Current	I <sub>cc</sub>	R <sub>L</sub> =∞	3	4	5	mA
Slew Rate	SR			1.0		V/μs
Unity Gain Bandwidth	GB			1.3		MHz
Operating Voltage Range	V <sup>+</sup>				15	V