

## Single-supply Dual High Current Operational Amplifier

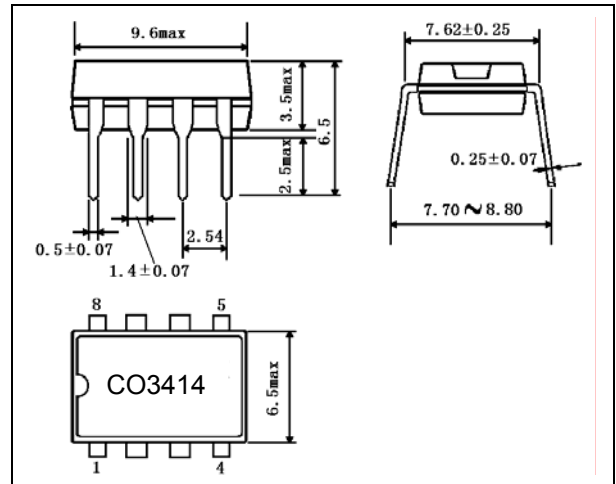
### DESCRIPTION

The CO3414 integrated circuit is a high gain, high output current, high output voltage swing dual operational amplifier capable of driving 70mA.

### FEATURE

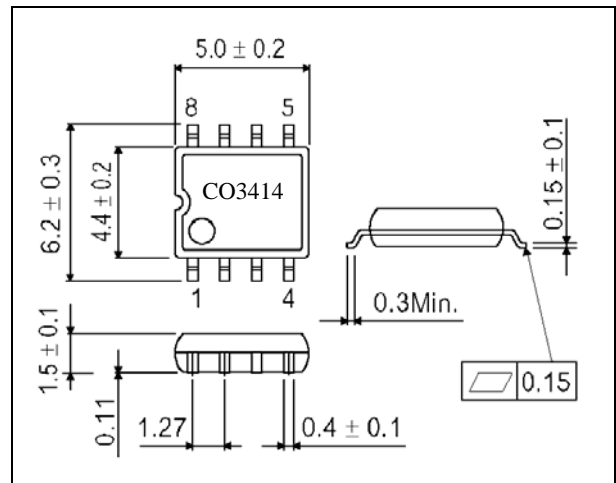
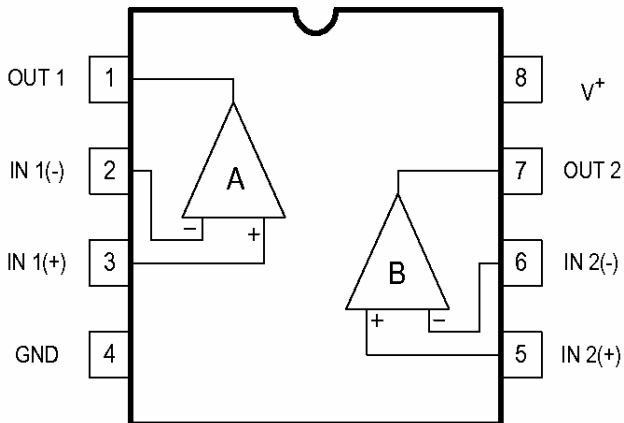
- Single Supply
- Operating Voltage (+3V~+15V)
- High Output Current (70mA)
- Slew Rate (1.0V/ms typ.)
- Bipolar Technology

### Outline Drawing



DIP-8

### PIN CONFIGURATIONS



SOP-8

\* All specs and applications shown above subject to change without prior notice.

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### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V+(V+/V-)	15(or ±7.5)	V
Differential Input Voltage	V <sub>ID</sub>	15	V
Input Voltage	V <sub>IC</sub>	-0.3~+15	V
Power Dissipation	P <sub>D</sub>	300	mW
Operating Temperature	Topr	-20~+75	°C
Storage Temperature	Tstg	-40~+125	°C

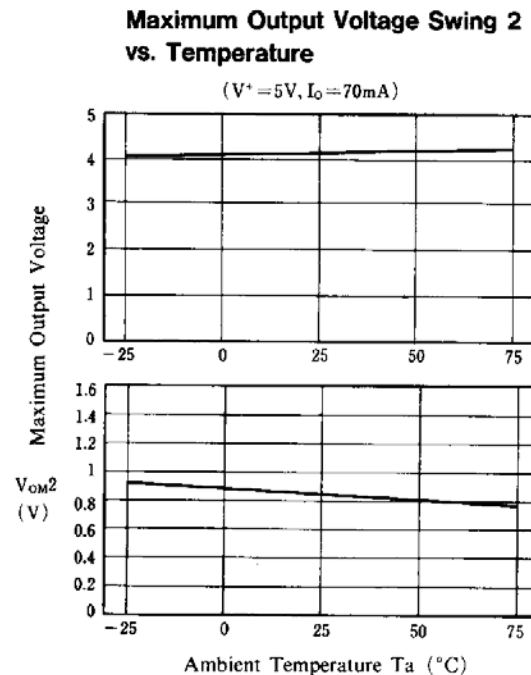
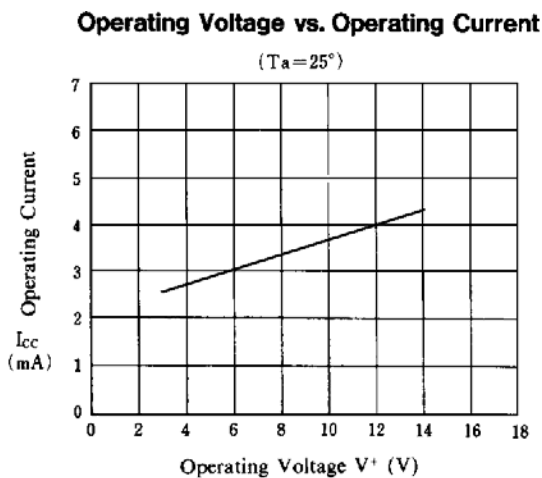
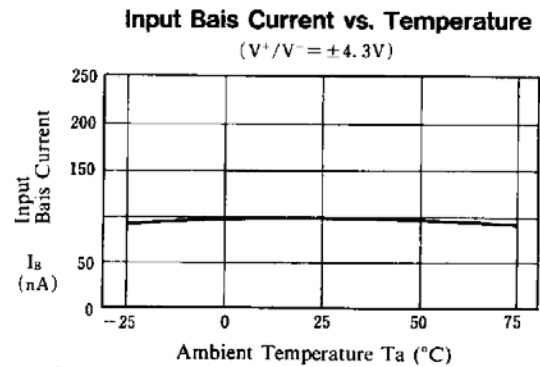
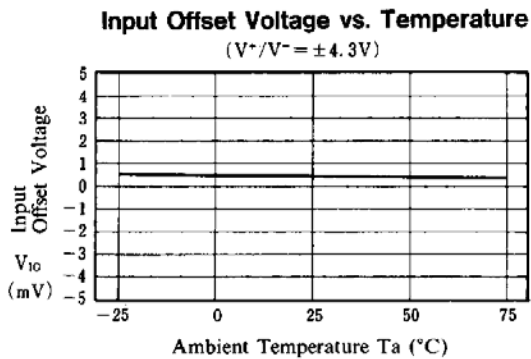
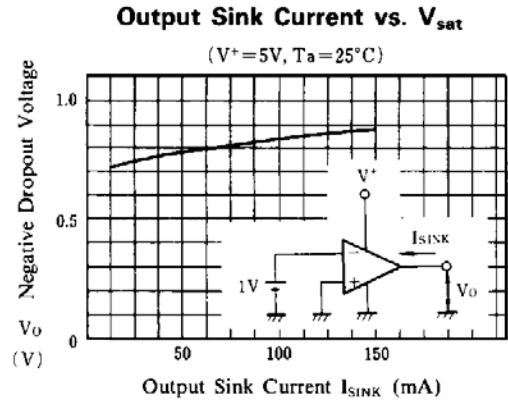
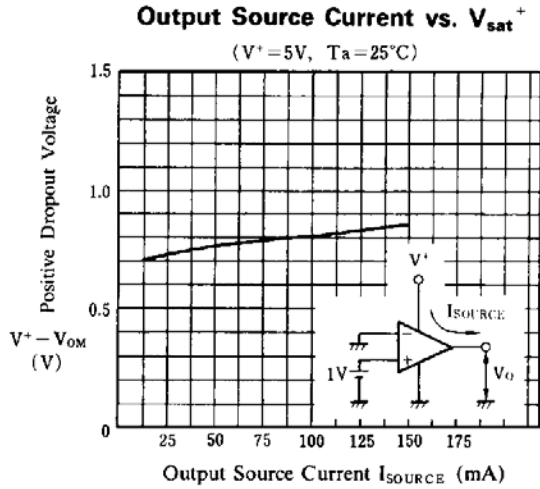
### ELECTRICAL CHARACTERISTICS (Unless otherwise specified: Ta=25°C, V<sup>+</sup>=8.6V)

Characteristics	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
Supply Voltage Rejection Ratio	SVR		80	90		dB
Operating Current	I <sub>CC</sub>	R <sub>L</sub> =∞	3	3.5	5	mA
Slew Rate	SR			1.0		V/μs
Unity Gain Bandwidth	GB			1.3		MHz
Operating Voltage Range	V <sup>+</sup>				15	V

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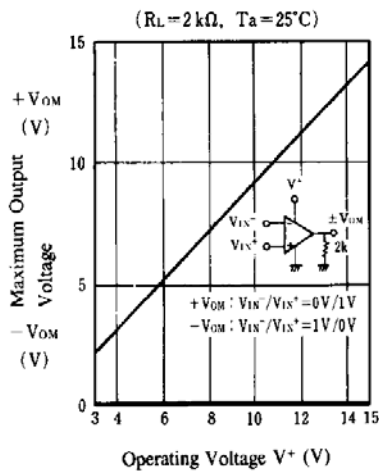
### CHARACTERISTIC CURVES



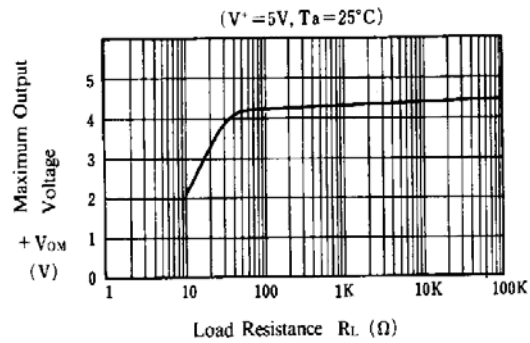
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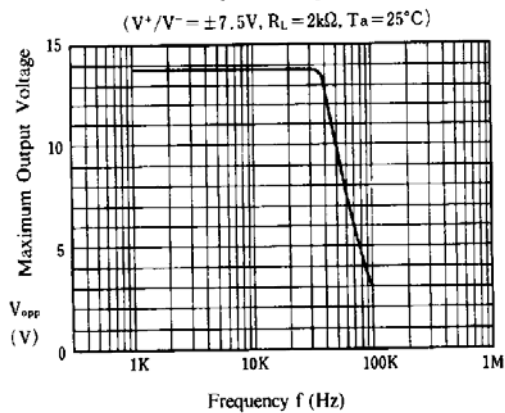
**Maximum Output Voltage vs. Operating Voltage**



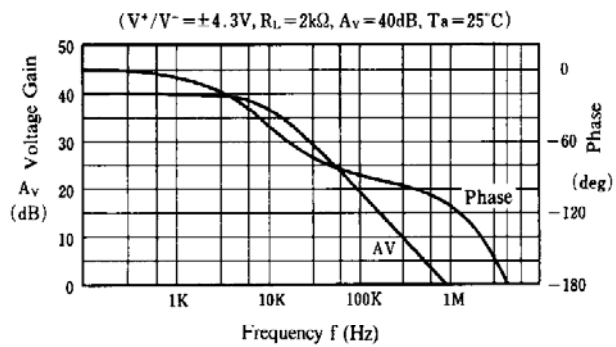
**Maximum Output Voltage vs. Load Resistance**



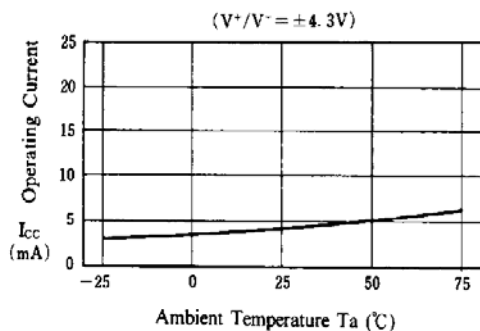
**Maximum Output Voltage vs. Frequency**



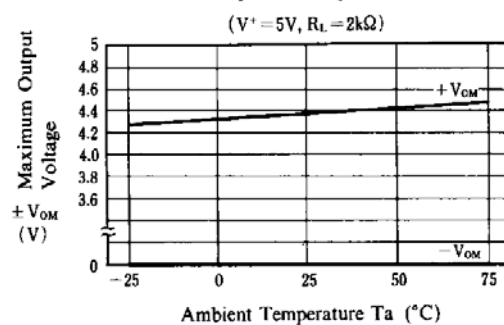
**Voltage Gain, Phase vs. Frequency**



**Operating Current vs. Temperature**



**Maximum Output Voltage vs. Temperature**



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