



CO3414

Single-supply Dual High Current Operational Amplifier

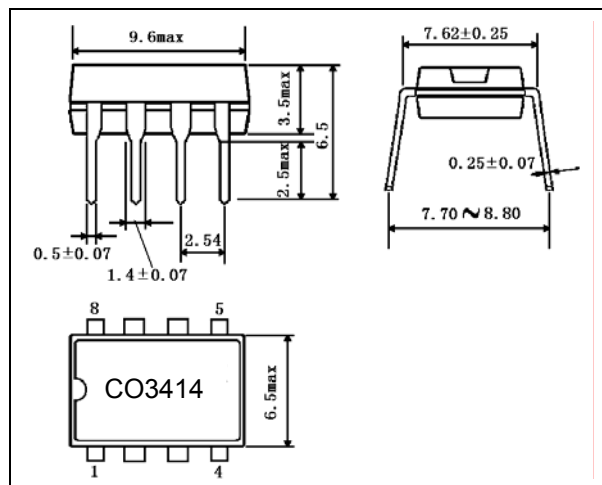
DESCRIPTION

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

FEATURE

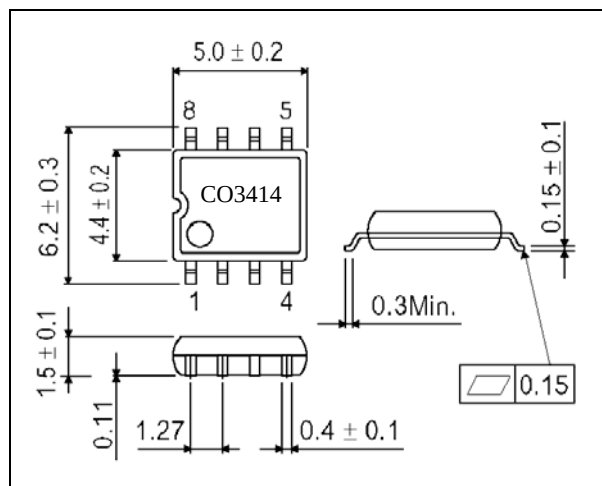
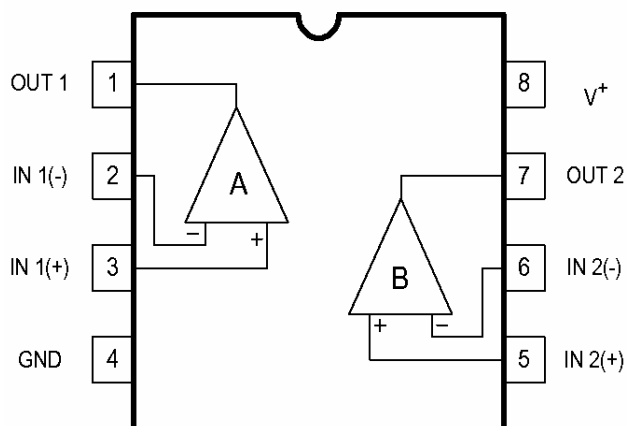
- Single Supply
- Operating Voltage (+3V~+15V)
- High Output Current (70mA)
- Slew Rate (1.0V/ms typ.)
- Bipolar Technology

Outline Drawing



DIP-8

PIN CONFIGURATIONS



SOP-8

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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 _{ID}	15	V
Input Voltage	V _{IC}	-0.3~+15	V
Power Dissipation	P _D	300	mW
Operating Temperature	Topr	-20~+75	°C
Storage Temperature	Tstg	-40~+125	°C

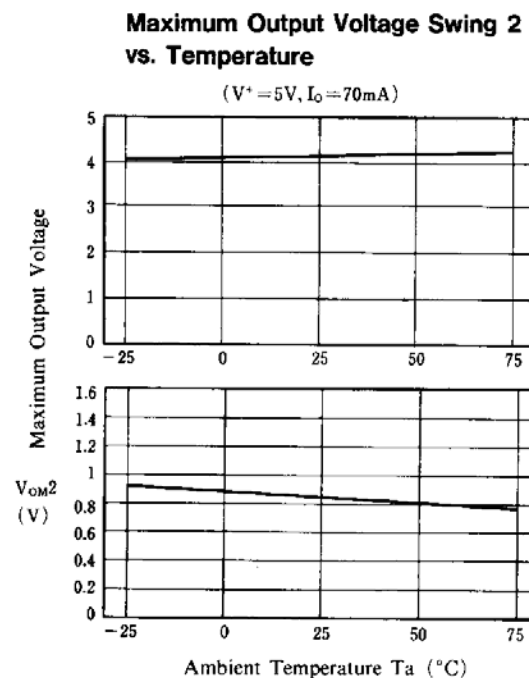
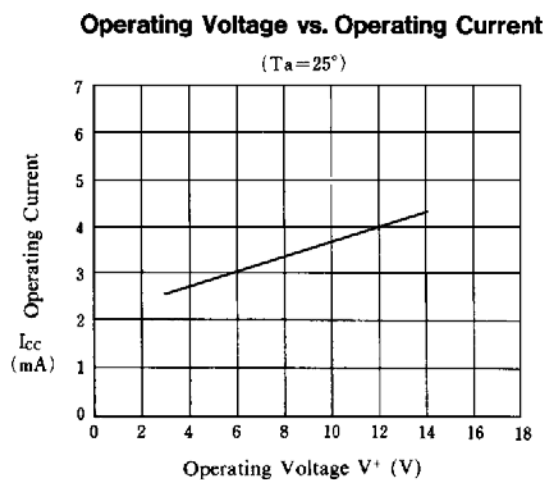
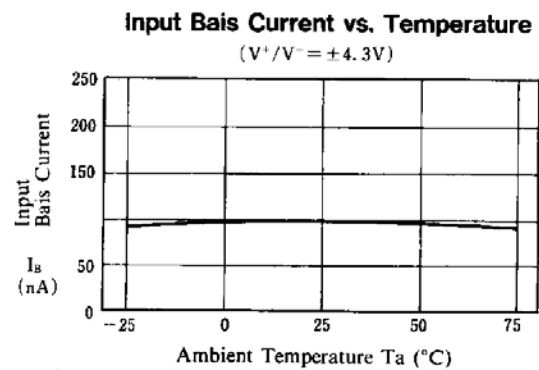
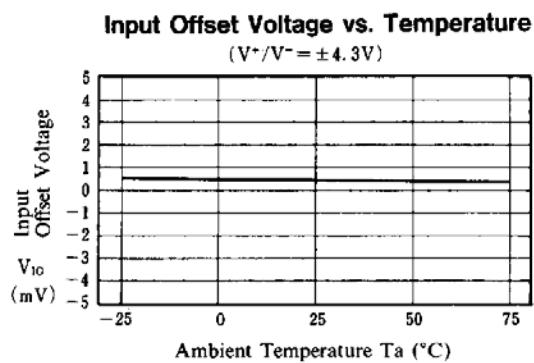
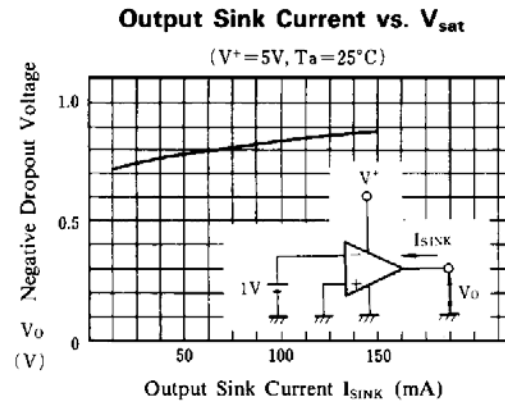
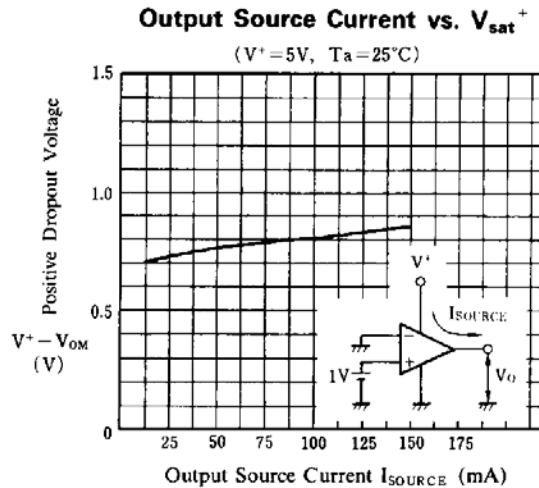
ELECTRICAL CHARACTERISTICS (Unless otherwise specified: Ta=25°C, V⁺=8.6V)

Characteristics	Symbol	Test conditions	Min	Typ	Max	Unit
Input Offset Voltage	V _{IO}	R _s =0Ω		2	5	mV
Input Offset Current	I _{IO}			5	100	nA
Input Bias Current	I _b			100	500	nA
Large Signal Voltage Gain	A _v	R _L =2kΩ	88	100		dB
Input Common Voltage range	V _{ICM}		V ⁺ -2			V
Maximum Output Voltage Swing 1	V _{OM1}	R _L ≥2kΩ, V ⁺ =5V	3.5			V
Maximum Output Voltage Swing 2	V _{OM2}	I _o =70mA, V ⁺ =5V	3.2			V
Common Mode Rejection Ratio	CMR		80	90		dB
Supply Voltage Rejection Ratio	SVR		80	90		dB
Operating Current	I _{cc}	R _L =∞	3	3.5	5	mA
Slew Rate	SR			1.0		V/μs
Unity Gain Bandwidth	GB			1.3		MHz
Operating Voltage Range	V ⁺				15	V

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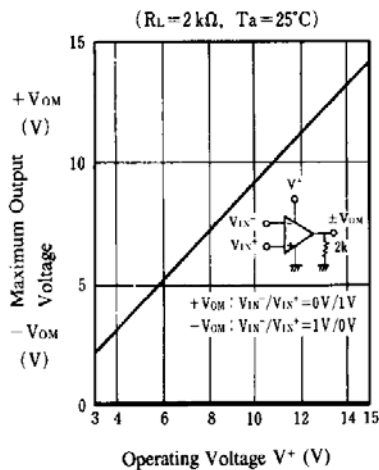
CHARACTERISTIC CURVES



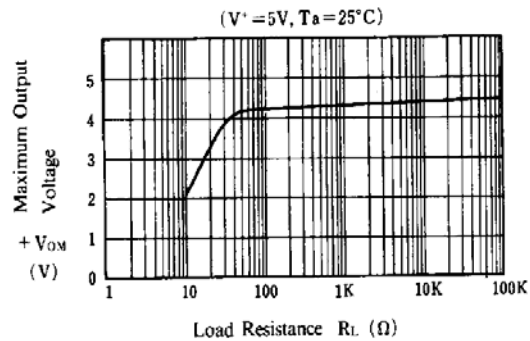
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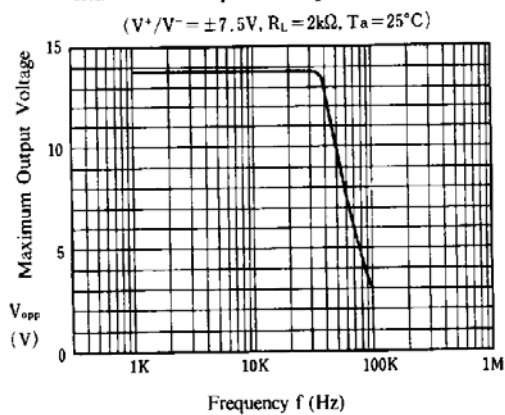
Maximum Output Voltage vs. Operating Voltage



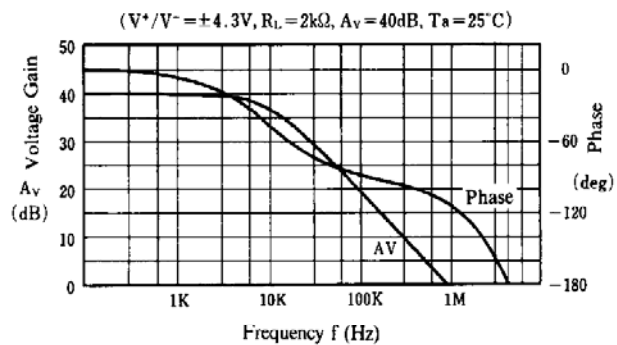
Maximum Output Voltage vs. Load Resistance



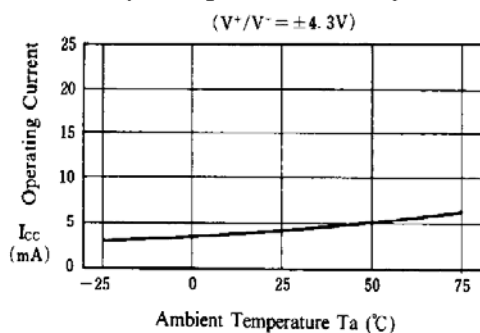
Maximum Output Voltage vs. Frequency



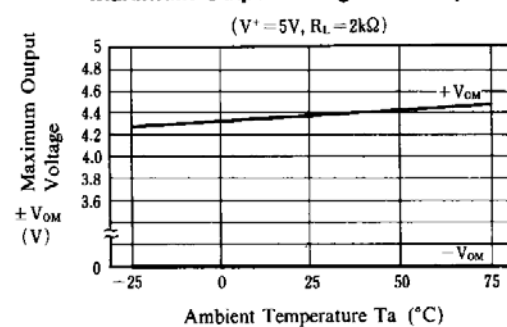
Voltage Gain, Phase vs. Frequency



Operating Current vs. Temperature



Maximum Output Voltage vs. Temperature



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