

Single-supply Dual High Current Operational Amplifier D4556

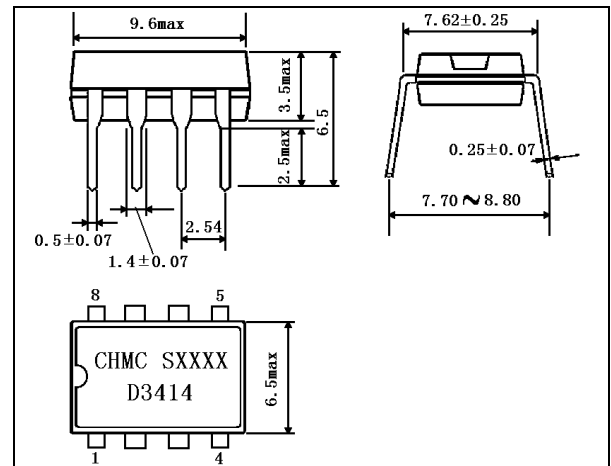
DESCRIPTION

The D4556 integrated circuit is a high gain, high output current, high output voltage swing dual operational amplifier capable of driving 70mA.

FEATURE

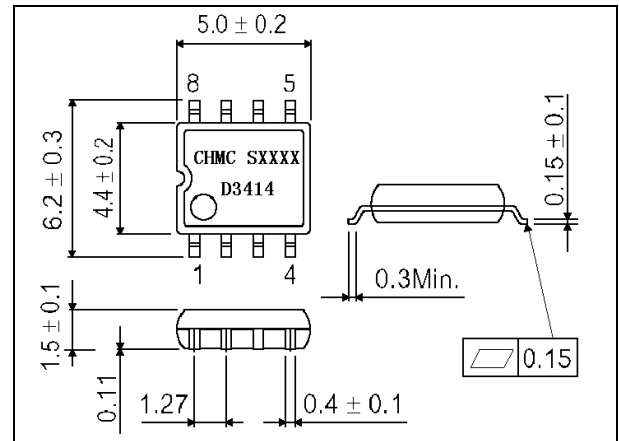
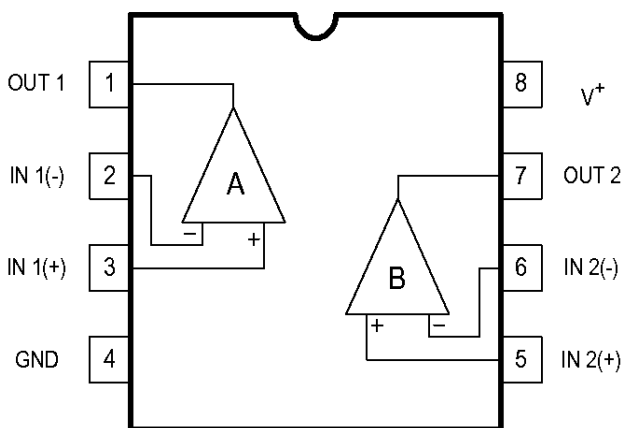
- Single Supply
- Operating Voltage (+3V~+15V)
- High Output Current (70mA)
- Slew Rate (1.0V/ms typ.)
- Bipolar Technology

Outline Drawing



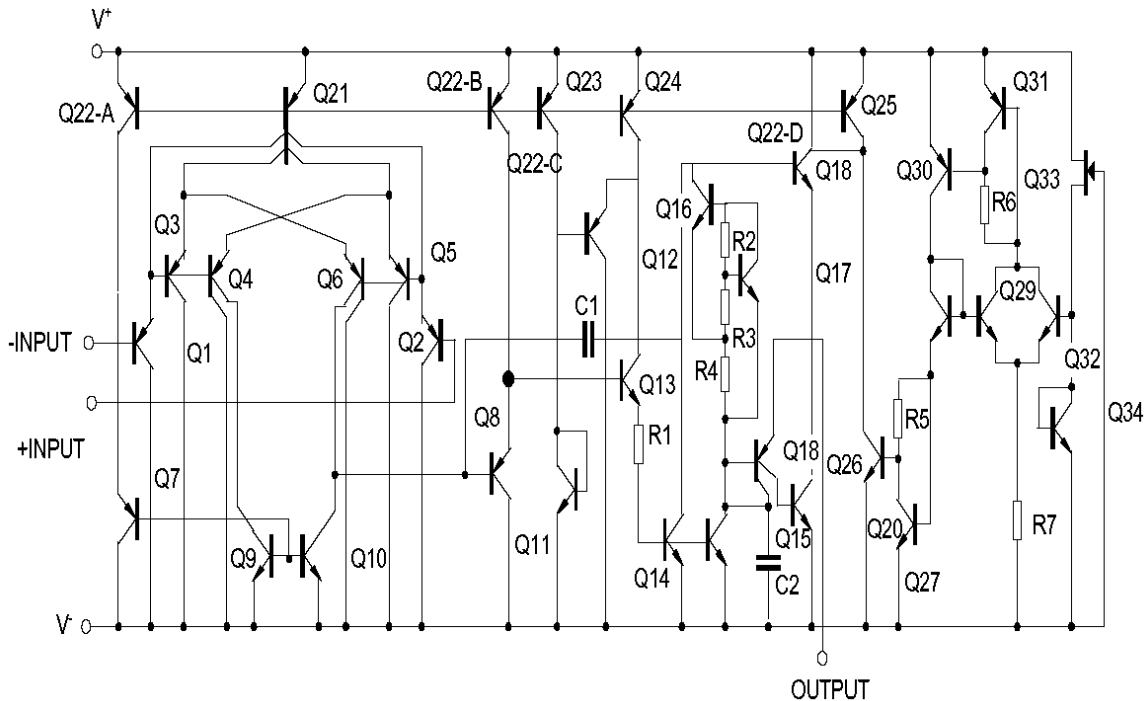
DIP8

PIN CONFIGURATIONS



SOP8

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

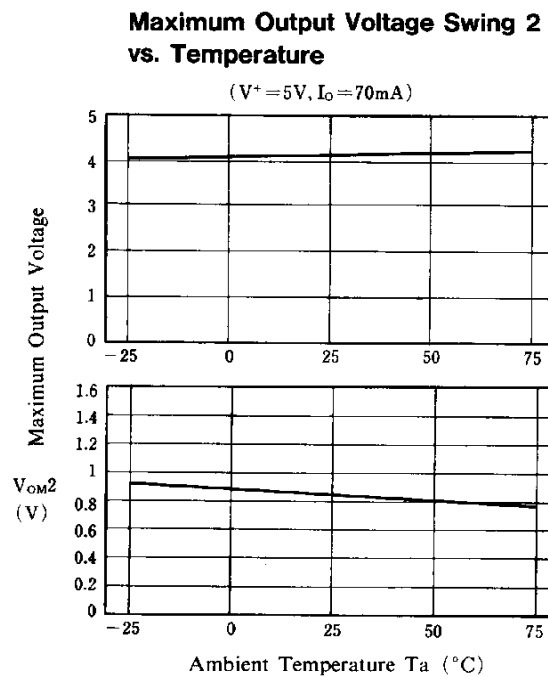
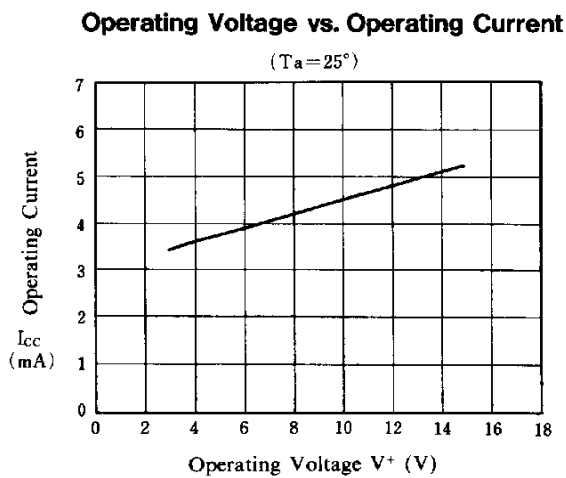
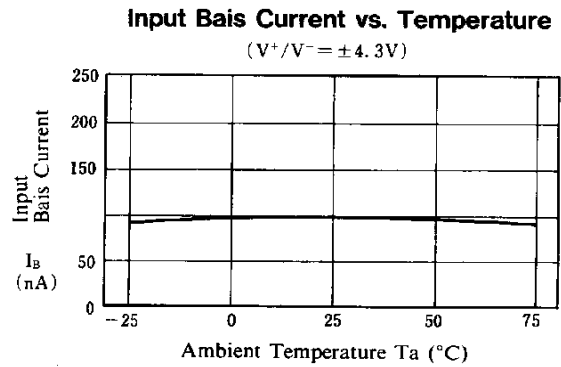
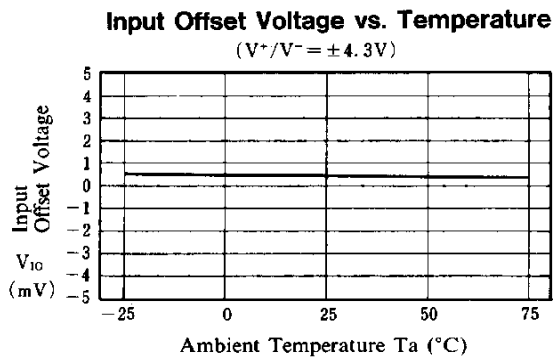
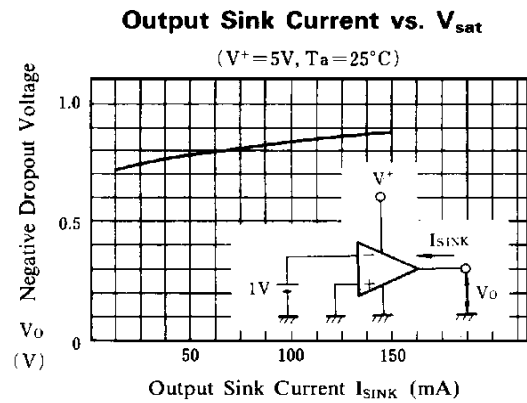
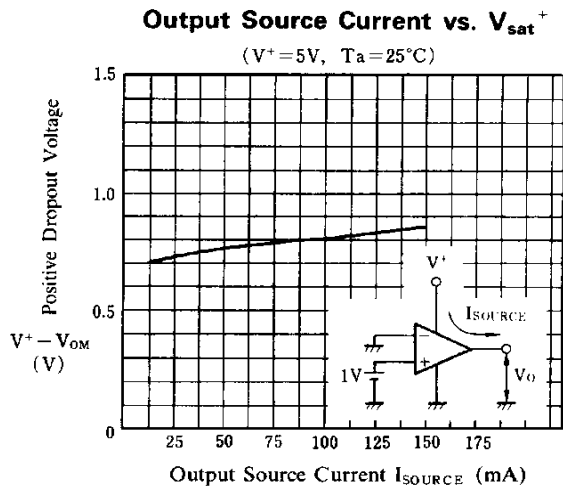
Characteristic	Symbol	Value	Unit
Supply Voltage	V+(V+/V-)	15(or +-7.5)	V
Differential Input Voltage	V _{ID}	15	V
Input Voltage	V _I	-0.3~+15	V
Power Dissipation	P _D	300	mW
Operating Temperature	T _{opr}	-20~+75	°C
Storage Temperature	T _{stg}	-40~+125	°C

ELECTRICAL CHARACTERISTICS

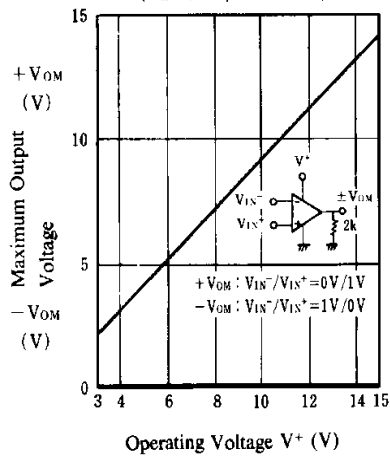
(Unless otherwise specified: Ta=25°C, VDD=3.7V, No load)

Characteristics	Symbol	Test conditions	Min	Typ	Max	Unit
Input Offset Voltage	V _{IO}	R _s =0 Ω		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 =2k Ω	88	100		dB
Input Common Voltage range	V _{ICM}		V ⁺ -2			V
Maximum Output Voltage Swing 1	V _{OM1}	R _L ≥ 2k Ω , 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	4	5	mA
Slew Rate	SR			1.0		V/μs
Unity Gain Bandwidth	GB			1.3		MHz
Operating Voltage Range	V ⁺				15	V

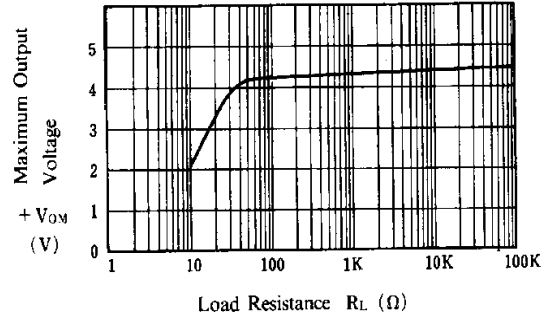
CHARACTERISTIC CURVES



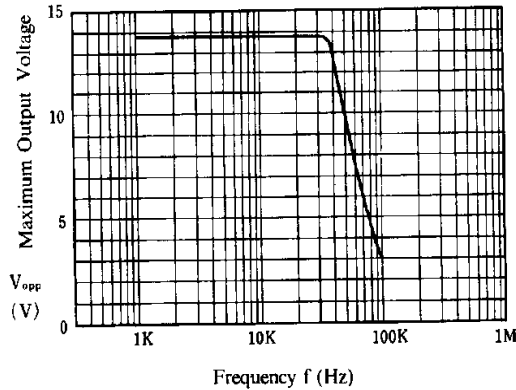
Maximum Output Voltage vs. Operating Voltage
($R_L = 2\text{ k}\Omega$, $T_a = 25^\circ\text{C}$)



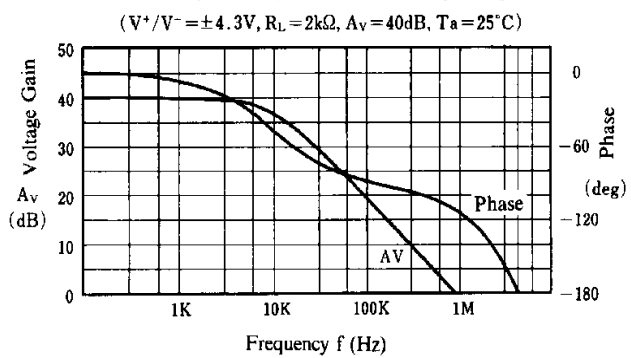
Maximum Output Voltage vs. Load Resistance
($V^+ = 5\text{V}$, $T_a = 25^\circ\text{C}$)



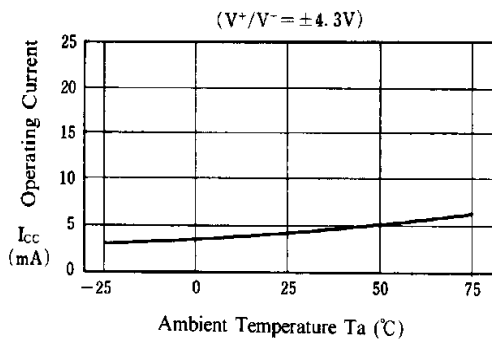
Maximum Output Voltage vs. Frequency
($V^+/V^- = \pm 7.5\text{V}$, $R_L = 2\text{ k}\Omega$, $T_a = 25^\circ\text{C}$)



Voltage Gain, Phase vs. Frequency



Operating Current vs. Temperature



Maximum Output Voltage vs. Temperature

