



DUAL OPERATIONER AMPLIFIER LM4558N/D/S

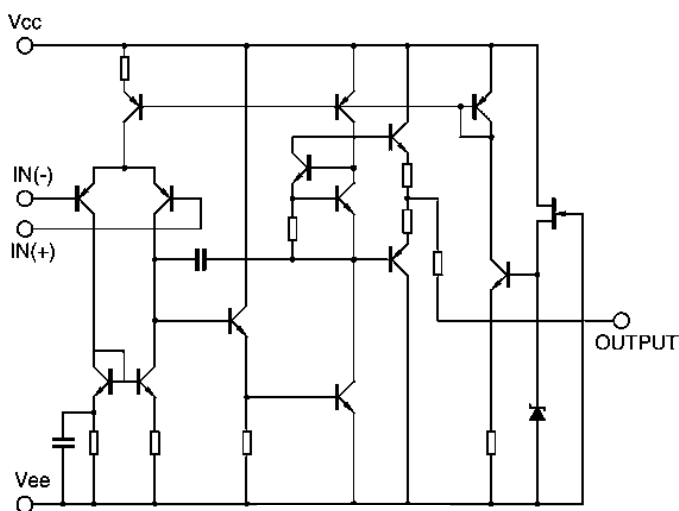
GENERAL DESCRIPTION

The LM4558 is a dual high-gain operational amplifier internally compensated and constructed on a single silicon chip. It offers high speed, a wide band width, and low noise. Outstanding thermal characteristics and voltage gain band width make these ICs ideal for use in a wide variety of electronic circuits.

FEATURES

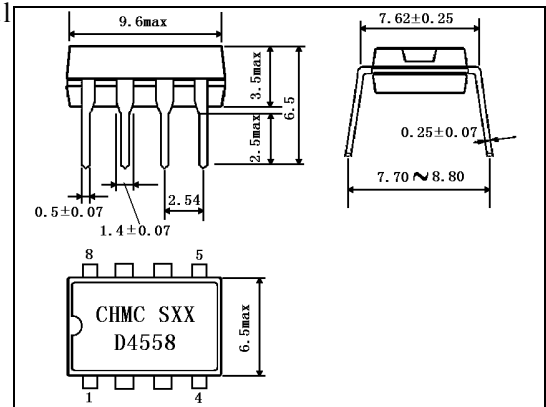
- Operating Voltage ($\pm 4V \sim \pm 18V$)
- High Voltage Gain (100dB typ.)
- High Input Resistance ($5M\Omega$ typ.)
- Package Outline DIP8、SIP8、SOP8
- Bipolar Technology
- Compatible with LM4558

BLOCK DIAGRAM

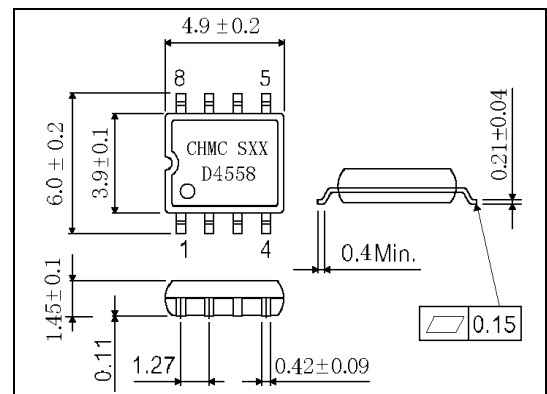


Outline Drawing

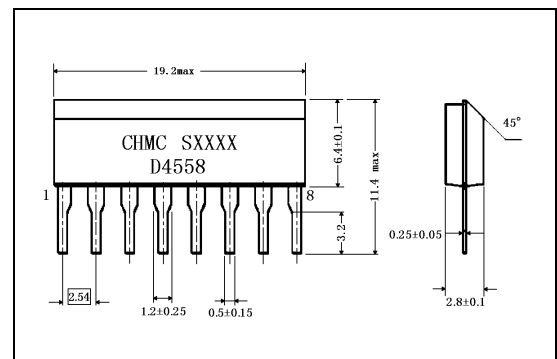
Unit:mm



DIP8

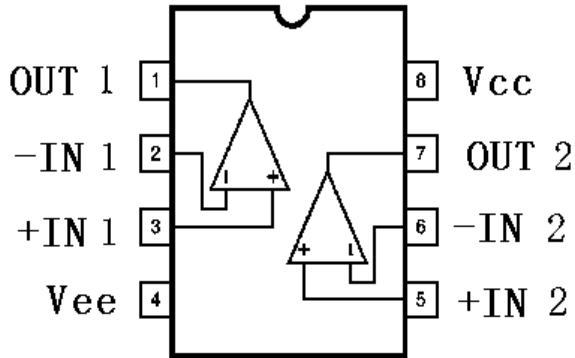


SOP8

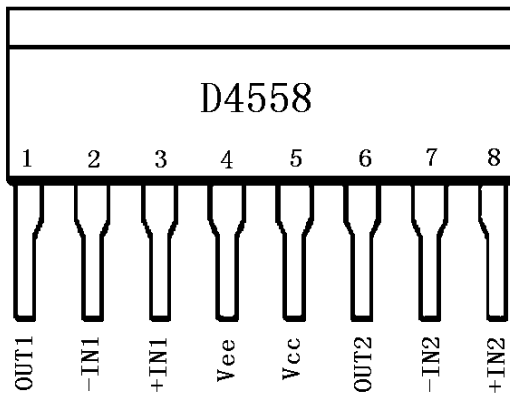


SIP8

PIN CONNFIGURATION



DIP8/SOP8



SIP8

ABSOLUTE MAXIMUM RATINGS (Tamb=25°C)

Characteristics	Symbol	Value	Unit
Supply voltage	Vcc	±22	V
Differential Input Voltage	V _{I(DIFF)}	±30	V
Power dissipation	P _D	680	mW
Input voltage	V _I	±15	V
Operating temperature	Tamb	-40~+85	°C
Storage temperature	Tstg	-65~+150	°C
Solder ability (3±0.5sec, 95% leads covered)		230±5	°C
Soldering heat endurance (10±1sec,no damage)		260±5	°C

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $T_{amb}=25^{\circ}C$, $V_{cc}=15$, $V_{ee}=-15V$)

characteristics	Test conditions	Symbol	limit			Unit
			Min.	Typ.	Max.	
Operating current		I_{cc}		3.5	5.6	mA
Input offset voltage	$R_s < 10k\Omega$	V_{IO}	-	2	5.0	mV
Input offset current		I_{IO}		5	200	nA
Input bias current		I_{BIAS}	-	30	500	nA
Input common mode voltage range		$V_{I(R)}$	± 12	± 14		V
Large signal voltage gain	$V_o(p-p) = \pm 10V, R_L < 2k\Omega$	G_v	86	100		dB
Output voltage swing	$R_L > 10k\Omega$	$V_o(p-p)$	± 12	± 14	-	V
	$R_L > 2k\Omega$		± 10	± 13	-	
Common mode rejection ratio	$R_s < 10k\Omega$	CMRR	80	95		dB
Supply voltage rejection ratio	$R_s < 10k\Omega$	PSRR	80	95		dB
Input resistance		R_{IN}	0.3	5		$M\Omega$
Gain bandwidth F=100KHz	$V_i=10mV, R_L=2Kohm$ $C_L=100pf$			5.0		MHz
Equivalent input noise voltage	$R_s=1K\Omega, 30KHz$ LPF	V_{ni}		1.4		μV_{rms}
Channel separation		V_{o1}/V_{o2}		120		dB
Slew rate				1.5		$V/\mu s$

CHARACTERISTIC CURVES

