

## XJS4558 DUAL OPERATIONER AMPLIFIER

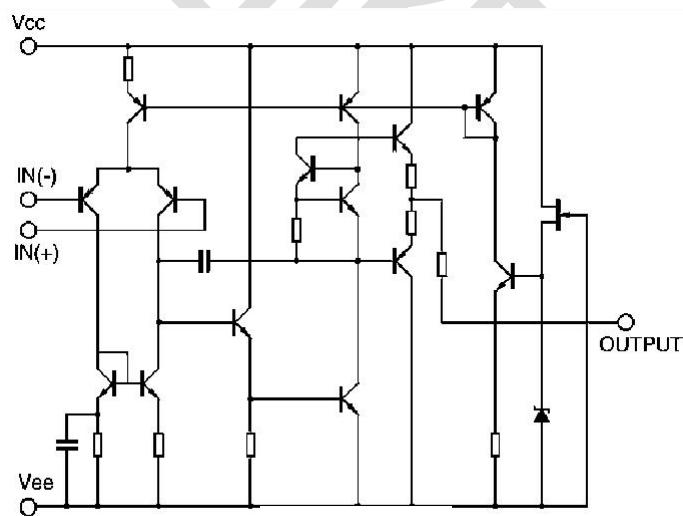
### GENERAL DESCRIPTION

XJS4558 is a dual high-gain operational amplifier internally compensated and constructed on a single silicon chip using an advanced epitaxial process. 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.

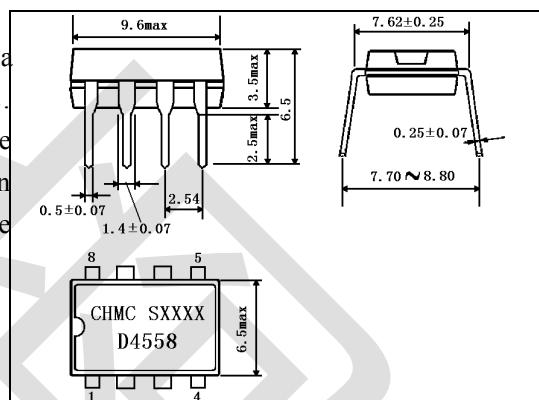
### FEATURES

- Operating Voltage ( $\pm 4V \sim \pm 16V$ )
- High Voltage Gain (100dB typ.)
- High Input Resistance ( $5M\Omega$  typ.)
- Package Outline DIP8、SIP8、SOP8
- Bipolar Technology

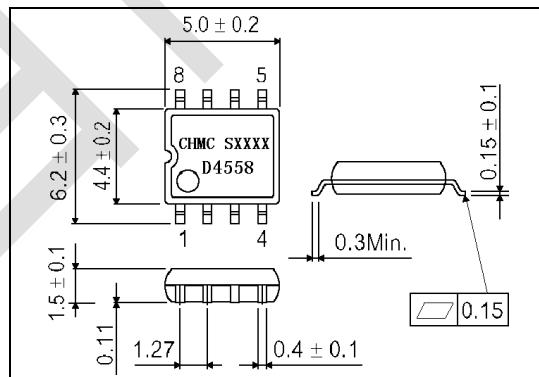
### BLOCK DIAGRAM



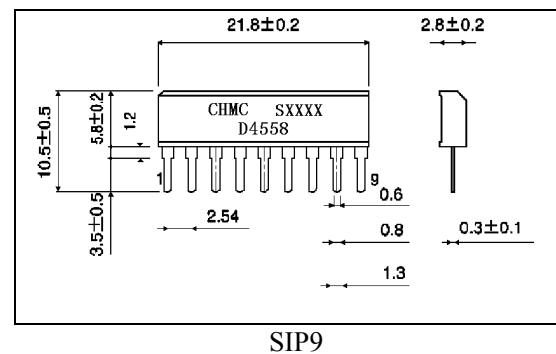
Outline Drawing The



DIP8



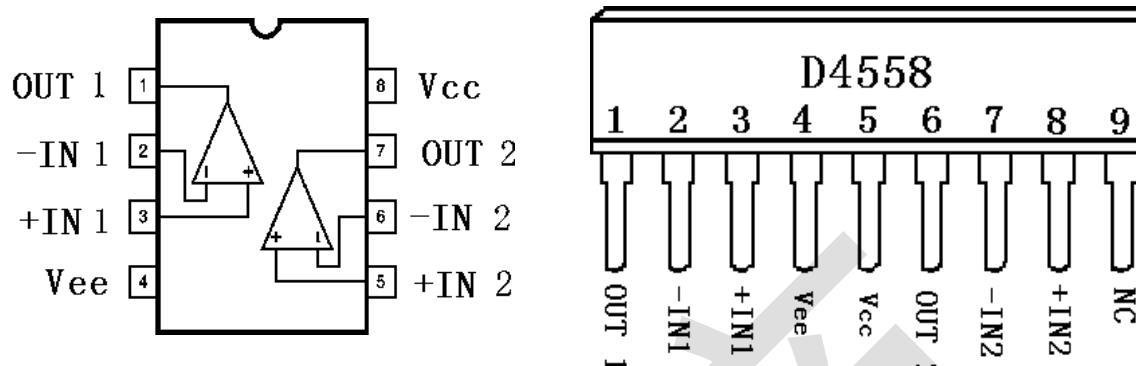
SOP8



SIP9

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### PIN CONNFIGURATION



### PIN DESCRIPTIONS:

引出端序号	功 能	符 号	引出端序号	功 能	符 号
1	Output 1	OUT 1	5	Input 2 (+)	IN 2( +)
2	Input 1 (-)	IN 1(-)	6	Input 2 (-)	IN 2(-)
3	Input 1 (+)	IN 1(+)	7	Output 2	OUT 2
4	Vee	Vee	8	Supply voltage	Vcc

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

Characteristics	Symbol	Value	Unit
Supply voltage	Vcc	±16	V
Differential Input Voltage	VI(DIFF)	±30	V
Power dissipation	P <sub>D</sub>	680	mW
Input voltage	VI	±15	V
output short circuit time		无限制	
Operating temperature	Tamb	0~+70	°C
Storage temperature	Tstg	-65~+150	°C
Solderability(3±0.5sec, 95% leads covered)		230±5	°C
Soldering heat endurance (10±1sec,no damage)		260±5	°C

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**ELECTRICAL CHARACTERISTICS** (Unless otherwise specified, Tamb=25°C, Vcc=15, Vee=-15V)

characteristics	Test conditions	Symbol	limit			Unit
			Min.	Typ.	Max.	
Operating current		Icc		3.5	5.6	mA
Input offset voltage	Rs<10k Ω	Vio	-	2	6.0	mV
Input offset current		Iio		5	200	nA
Input bias current		Ibias	-	30	500	nA
Input common mode voltage range		Vi( R )	-	±12	±13	V
Large signal voltage gain	Vo (p-p) =±10V, RL<2k Ω	Gv	-	20	200	V/mV
Output voltage swing	RL>10k Ω	Vo (p-p)	±12	±14	-	V
	RL>2k Ω		±10	±13	-	
Common mode rejection ratio	Rs<10k Ω	CMRR	-	70	90	dB
Supply voltage rejection ratio	Rs<10k Ω	PSRR	-	76	90	dB
Input resistance		R <sub>IN</sub>	0.3	5		mΩ
Input capacitance		Ci		1.4		pF
Output resistance		Ro		75		Ω
Output short circuit current		Ios	10	20		mA
Rise time, Ta=25°C	Vi=20mV, RL=2Kohm CL=100pf	tr		0.3		s
Gain bandwidth F=100KHz	Vi=10mV, RL=2Kohm CL=100pf			5.5		MHz
Over shoot	Vi=20mV, RL=2Kohm CL=100pf	kov		15		%
Equivalent input noise voltage	RS=1Kohm, 30KHz LPF	en		12		nV
Channel separation		Vo1/Vo2		120		dB

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### CHARACTERISTIC CURVES

