

SANYO	No.911C	LA6458D,6458S
		Monolithic Linear IC High-Performance Dual Operational Amplifiers

The LA6458 consists of two independent, internally phase compensated operational amplifiers. Application areas include active filters, audio preamplifiers, and various electronic circuits.

Features

- . LA6458D : 8-pin DIP, LA6458S : 9-pin SEP
- . On-chip phase compensation circuit.
- . High gain, low noise.
- . Slew rate : 1.1V/us typ.

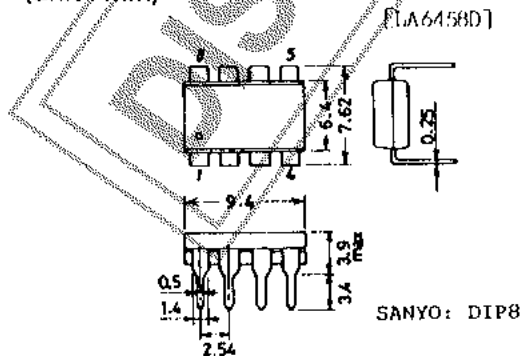
Maximum Ratings at $T_a=25^\circ\text{C}$

			unit
Supply Voltage	V_{CC}/V_{EE}	± 18	V
Differential Input Voltage	V_{ID}	± 30	V
Common-Mode Input Voltage	V_{IN}	± 15	V
Allowable Power Dissipation	P_{Dmax}	LA6458D	500 mW
		LA6458S	500 mW
Operating Temperature	T_{opr}	-20 to +75	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

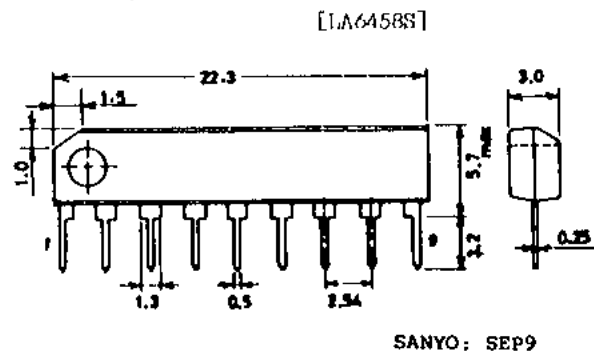
Operating Characteristics at $T_a=25^\circ\text{C}, V_{CC}=15\text{V}, V_{EE}=-15\text{V}$

		min	typ	max	unit
Input Offset Voltage	V_{IO} $R_S \leq 10\text{kohms}$		0.5	6	mV
Input Offset Current	I_{IO}		5	200	nA
Input Bias Current	I_B		60	500	nA
Common-Mode Input Voltage	V_{ICM}	± 12	± 14		V
Common-Mode Rejection Ratio	CMR	70	90		dB
Voltage Gain	V_{GO} $R_I \geq 2\text{kohms}, V_O = \pm 10\text{V}$	86	100		dB
Maximum Output Voltage	V_O $R_I \leq 10\text{kohms}$	± 12	± 14		V
	$R_I \geq 2\text{kohms}$	± 10	± 13		V
Slew Rate	SR $V_G=0, R_I \geq 2\text{kohms}$		1.1		V/ μs
Equivalent Input Noise Voltage	V_{NI} $R_S=1\text{kohm}, B.P. F=10\text{Hz to } 30\text{kHz}$		1.7		μV
Current Dissipation	I_{CO}		3.5	6	mA
Supply Voltage Rejection	ΔV_R $R_S \leq 10\text{kohms}$		30	150	$\mu\text{V/V}$

Package Dimensions 3001B-DBIC (unit : mm)

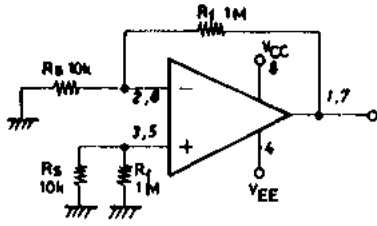


Package Dimensions 3017B-S9IC (unit : mm)

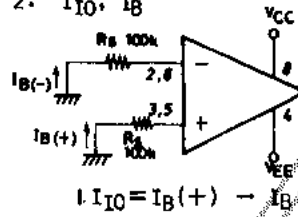


Test Circuits (Pin assignment: DIP)

1. V_{IO}, SVR

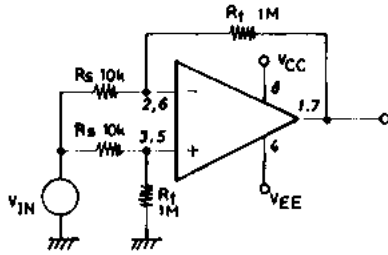


2. I_{IO}, I_B



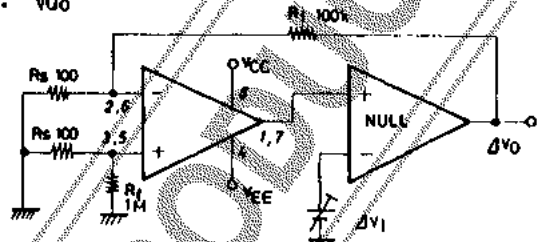
$$I_{IO} = I_{B(+)} - I_{B(-)}$$

3. V_{ICM}, CMR



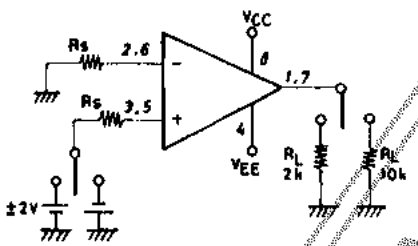
$$CMR = 20 \log \frac{V_{G \text{ diff}}}{V_{G \text{ cm}}}$$

4. V_{GO}

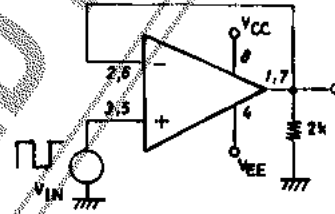


$$V_{GO} = 20 \log \frac{1}{\frac{\Delta V_O}{\Delta V_I} \cdot \left(\frac{R_S}{R_S + R_f} \right)}$$

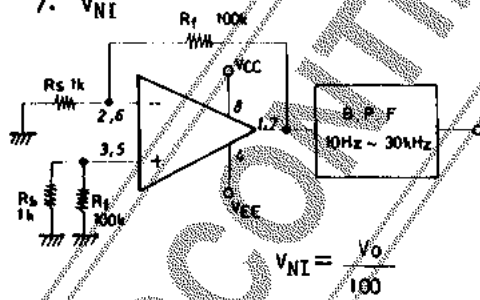
5. V_O



6. SR

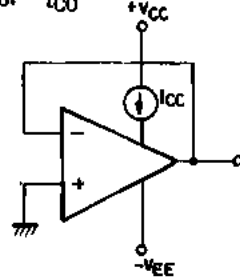


7. V_{NI}

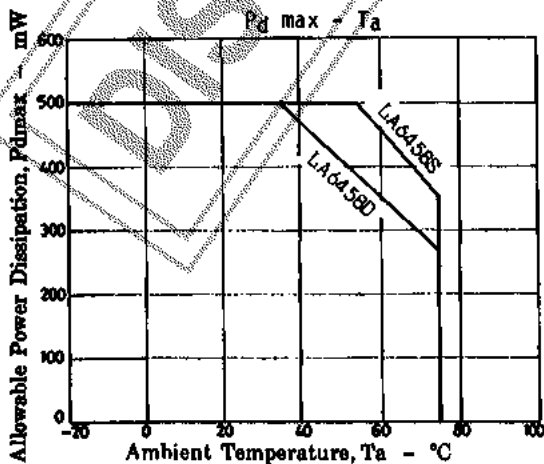


$$V_{NI} = \frac{V_O}{100}$$

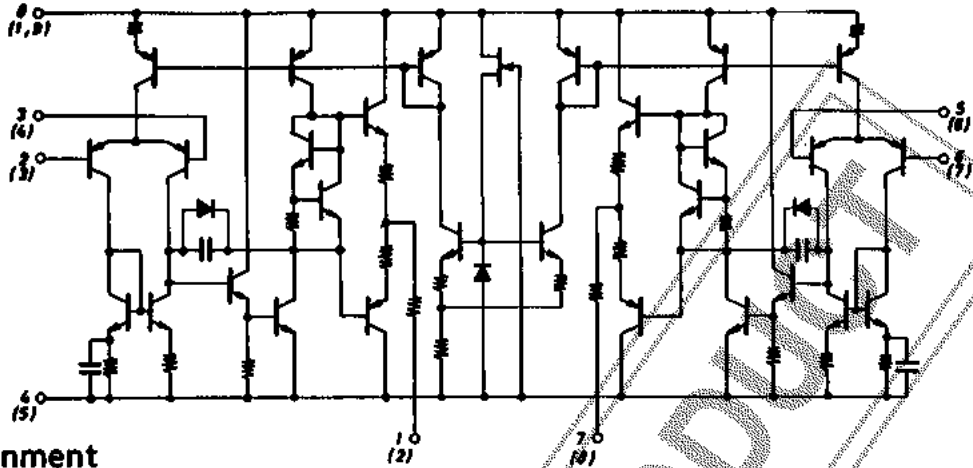
8. I_{CO}



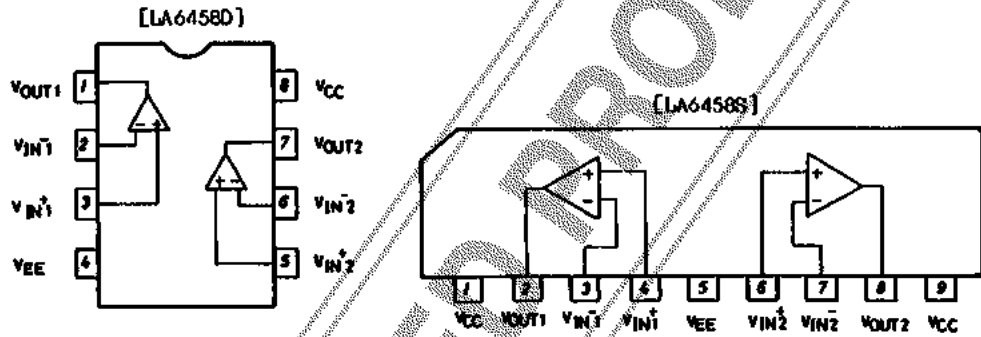
Unit (resistance: Ω)



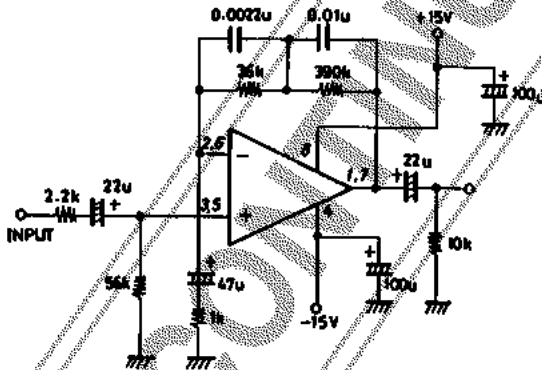
Equivalent Circuit : () of pin No. : LA6458S



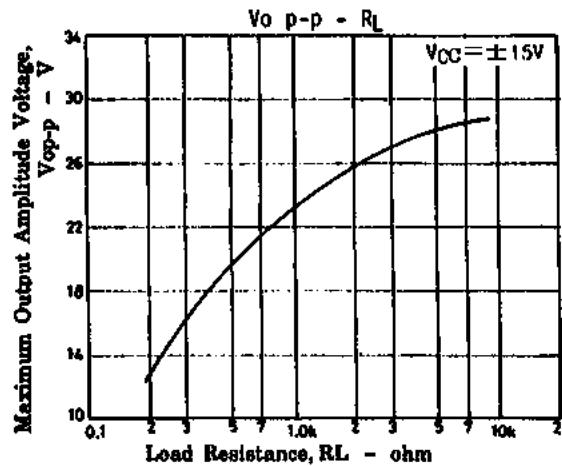
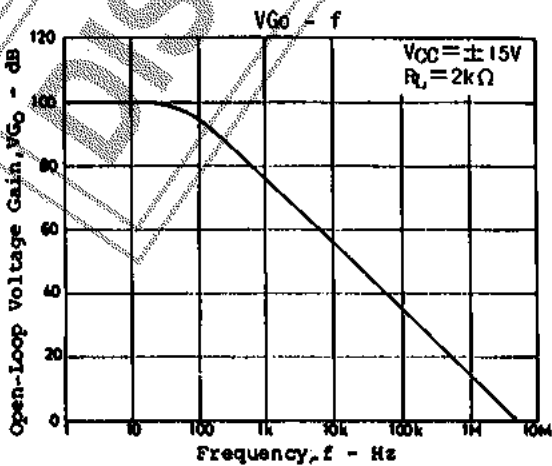
Pin Assignment



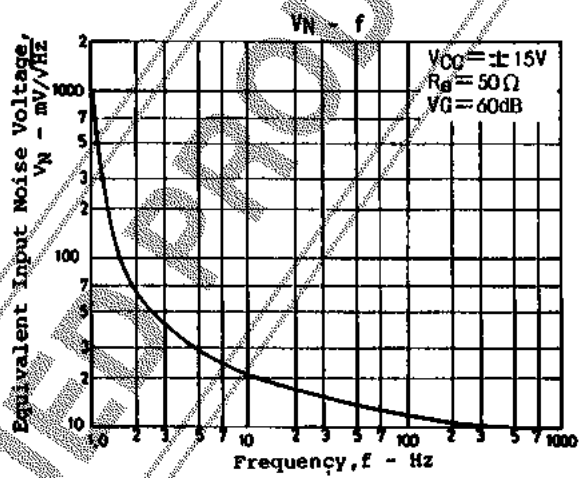
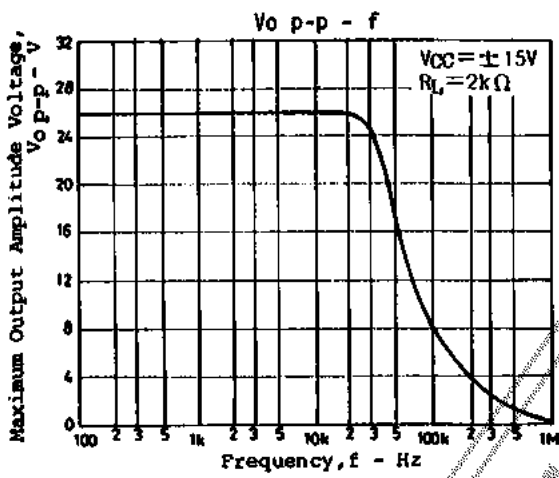
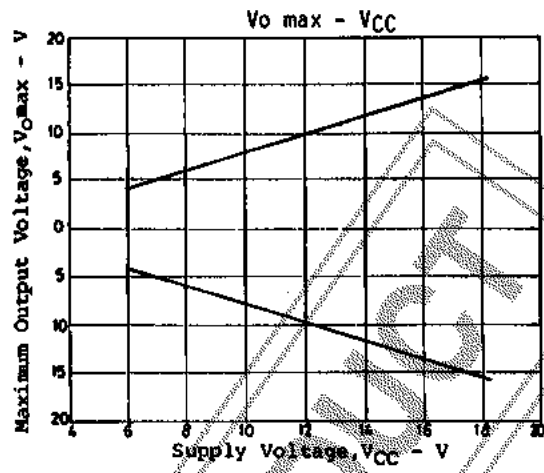
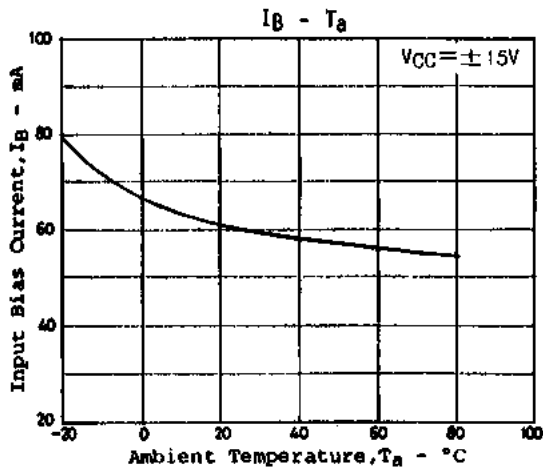
Sample Application Circuit/ RIAA preamplifier (VG=32.5dB)



Unit (resistance:Ω capacitance:F)



LA6458D.6458S



DISCONTINUED PRODUCT