

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

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.

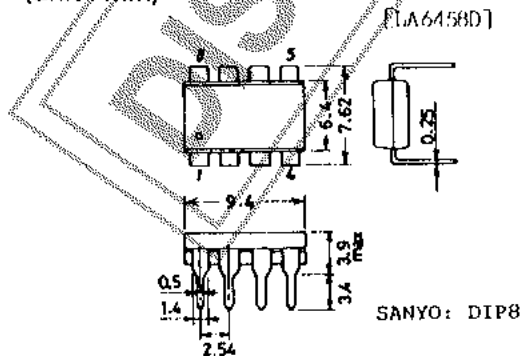
**Maximum Ratings at  $T_a=25^\circ\text{C}$**

			unit
Supply Voltage	$V_{CC}/V_{EE}$	$\pm 18$	V
Differential Input Voltage	$V_{ID}$	$\pm 30$	V
Common-Mode Input Voltage	$V_{IN}$	$\pm 15$	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	$^\circ\text{C}$

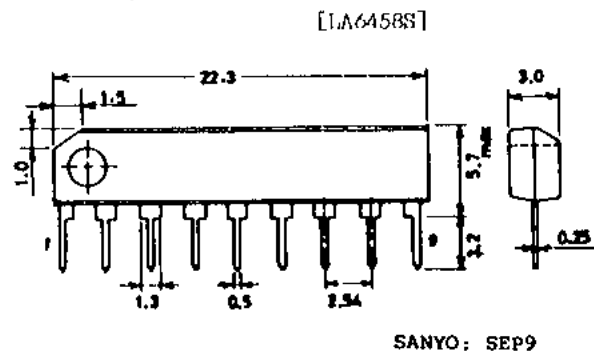
**Operating Characteristics at  $T_a=25^\circ\text{C}, V_{CC}=15\text{V}, V_{EE}=-15\text{V}$**

		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	$V_{ICM}$	$\pm 12$	$\pm 14$		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	$V_O$ $R_L \leq 10\text{kohms}$	$\pm 12$	$\pm 14$		V
	$R_L \geq 2\text{kohms}$	$\pm 10$	$\pm 13$		V
Slew Rate	SR $V_G=0, R_L \geq 2\text{kohms}$		1.1		V/ $\mu\text{s}$
Equivalent Input Noise Voltage	$V_{NI}$ $R_S=1\text{kohm}, B.P. F=10\text{Hz to } 30\text{kHz}$		1.7		$\mu\text{V}$
Current Dissipation	$I_{CO}$		3.5	6	mA
Supply Voltage Rejection	$\Delta V_R$ $R_S \leq 10\text{kohms}$		30	150	$\mu\text{V/V}$

**Package Dimensions 3001B-DBIC (unit : mm)**

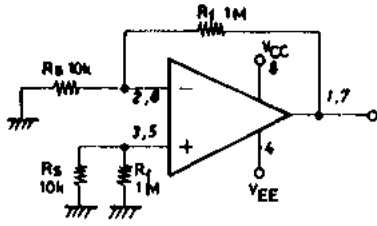


**Package Dimensions 3017B-S9IC (unit : mm)**

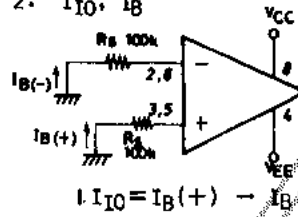


Test Circuits (Pin assignment: DIP)

1.  $V_{IO}, SVR$

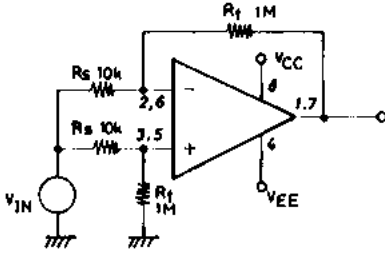


2.  $I_{IO}, I_B$



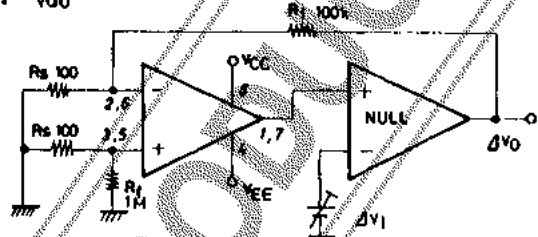
$$I_{IO} = I_{B(+)} - I_{B(-)}$$

3.  $V_{ICM}, CMR$



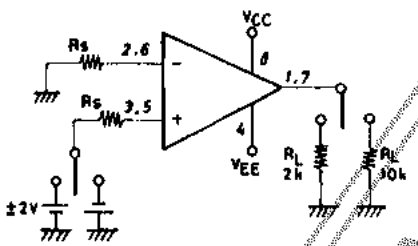
$$CMR = 20 \log \frac{V_G \text{ diff}}{V_G \text{ cm}}$$

4.  $V_{GO}$

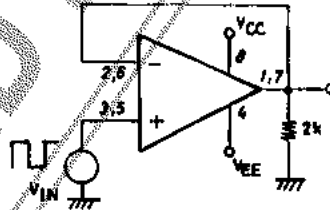


$$V_{GO} = 20 \log \frac{1}{\frac{\Delta V_O}{\Delta V_I} \cdot \left( \frac{R_S}{R_S + R_f} \right)}$$

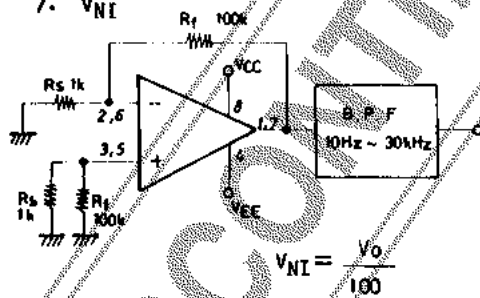
5.  $V_O$



6. SR

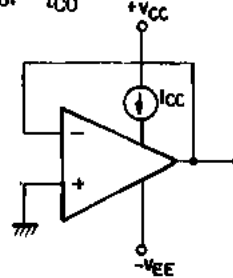


7.  $V_{NI}$

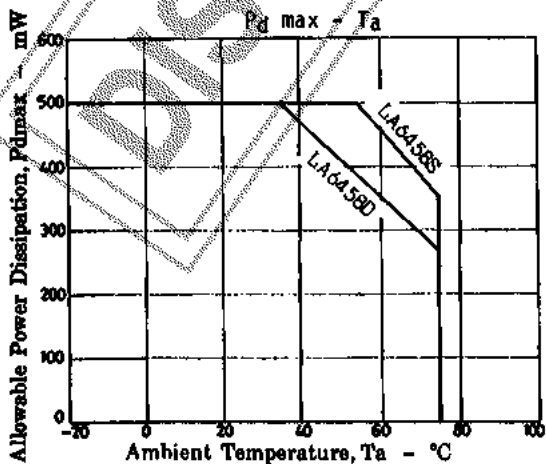


$$V_{NI} = \frac{V_O}{100}$$

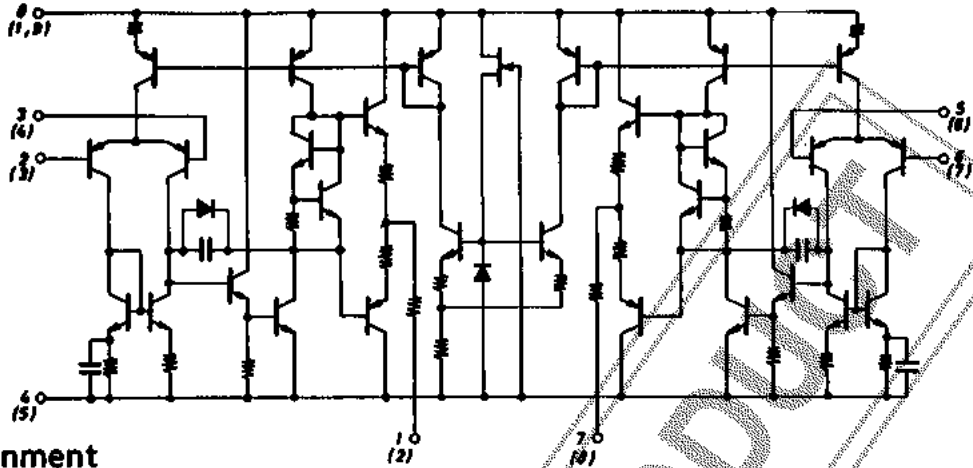
8.  $I_{CO}$



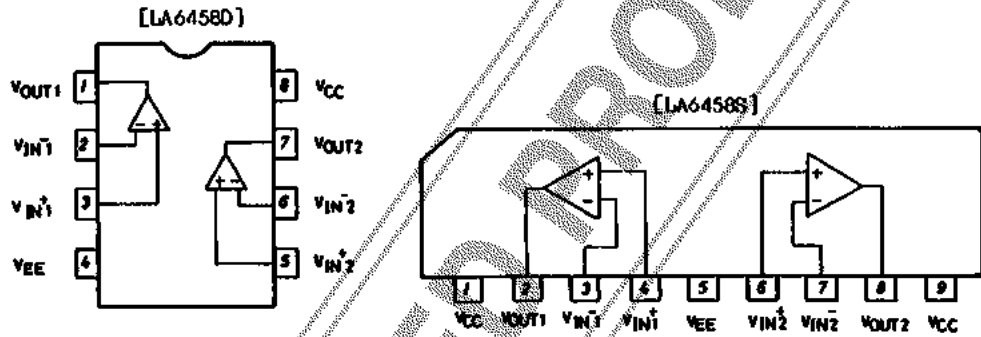
Unit (resistance:  $\Omega$ )



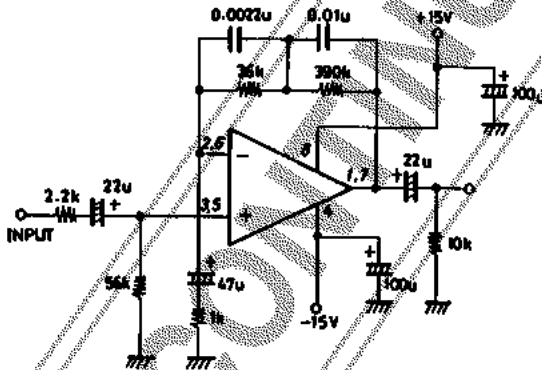
Equivalent Circuit : ( ) of pin No. : LA6458S



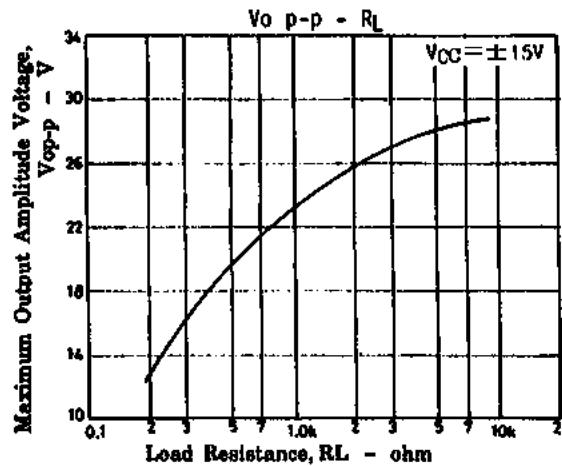
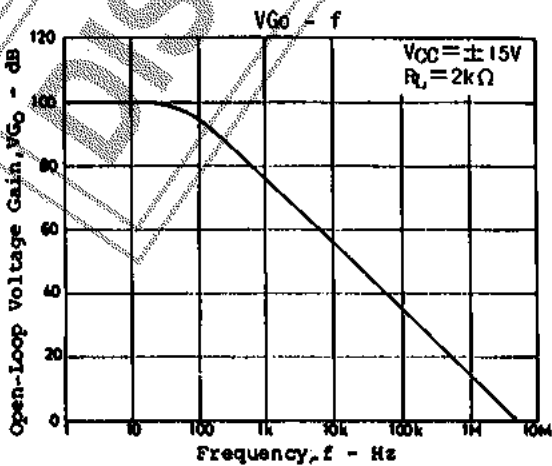
Pin Assignment



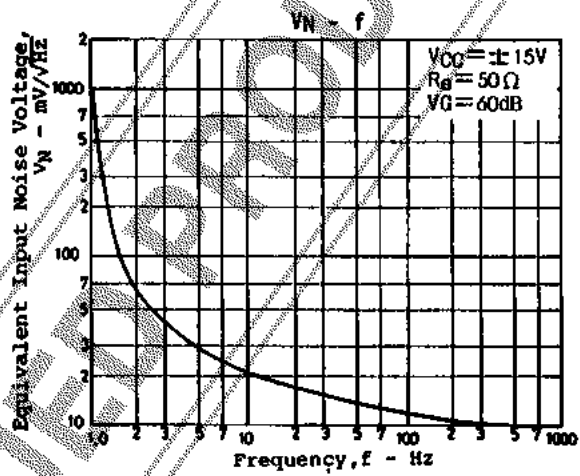
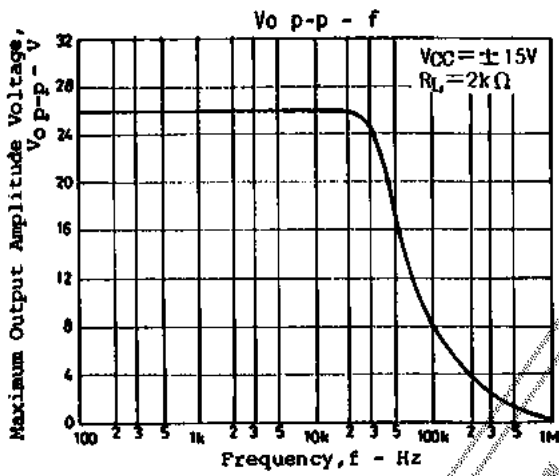
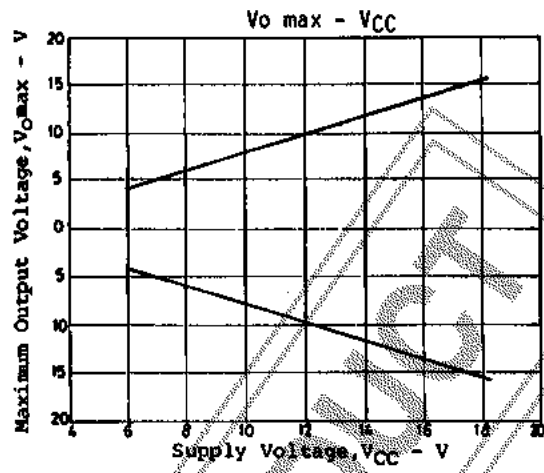
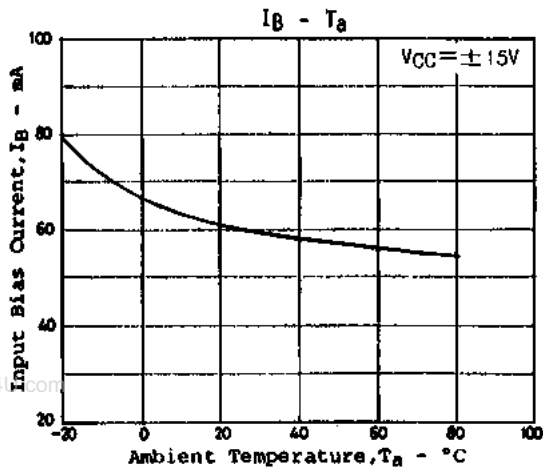
Sample Application Circuit/ RIAA preamplifier (VG=32.5dB)



Unit (resistance:Ω capacitance:F)



LA6458D.6458S



DISCONTINUED