Ordering number: EN 911C

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°C

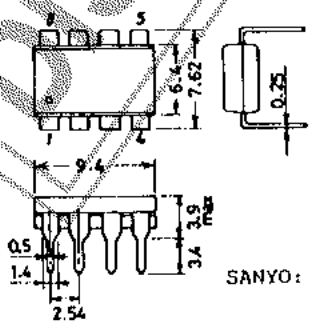
				unit
Supply Voltage	V_{CC}/V_{EE}		±18	V
Differential Input Voltage	V_{ID}		±30	V
Common-Mode Input Voltage	V_{IN}		±15	V
Allowable Power Dissipation	$P_d$max	LA6458D	500	mW
		LA6458S	500	mW
Operating Temperature	Topr		-20 to +75	°C
Storage Temperature	Tstg		-40 to +125	°C

Operating Characteristics at T_a=25°C, V_{CC}=15V, V_{EE}=-15V

			min	typ	max	unit
Input Offset Voltage	V_{IO}	R_S≦10kohms		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_L≧2kohms, V_O=±10V	86	100		dB
Maximum Output Voltage	V_O	R_L≧10kohms	±12	±14		V
		R_L≧2kohms	±10	±13		V
Slew Rate	SR	VG=0, R_L≧2kohms		1.1		V/μs
Equivalent Input Noise Voltage	V_{N1}	R_S=1kohm, B. P. F=10Hz to 30kHz		1.7		μV
Current Dissipation	I_{CO}			3.5	6	mA
Supply Voltage Rejection	SVR	R_S≦10kohms		30	150	μV/V

Package Dimensions 3001B-D8IC (unit : mm)

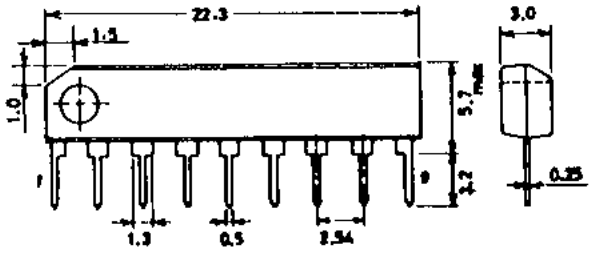
[LA6458D]



SANYO: DIP8

Package Dimensions 3017B-S9IC (unit : mm)

[LA6458S]

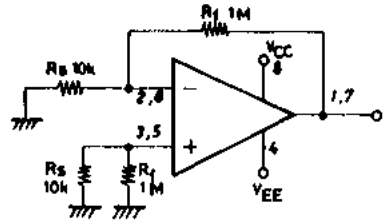


SANYO: SEP9

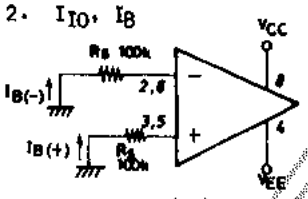
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

Test Circuits(Pin assignment: DIP)

1. V_{IO}, SVR

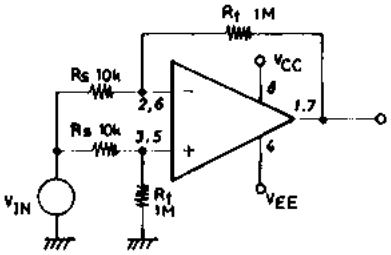


2. I_{IO}, I_B



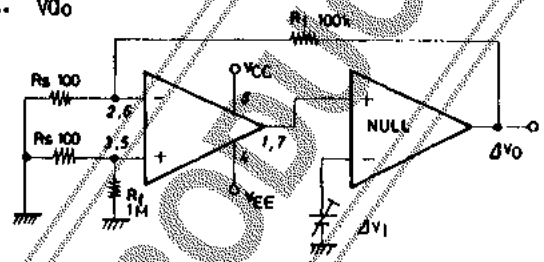
$I_{IO} = I_B(+) - I_B(-)$

3. V_{ICM}, CMR



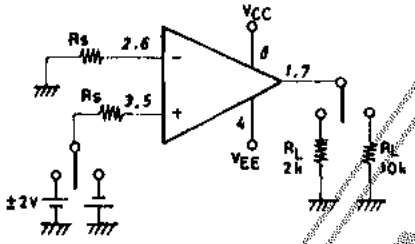
$$CMR = 20 \log \frac{VG\ diff}{VG\ cm}$$

4. V_{GO}

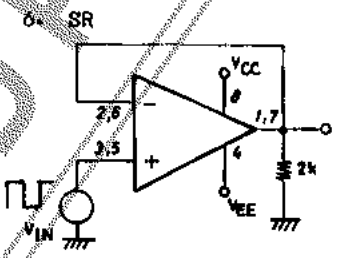


$$V_{GO} = 20 \log \frac{1}{\frac{\Delta V_O}{\Delta V_I} \cdot \left(\frac{R_S}{R_S + R_f}\right)}$$

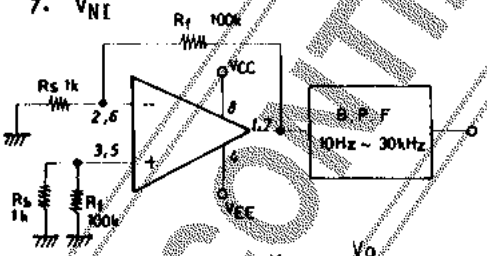
5. V_O



6. SR

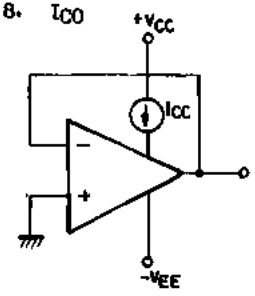


7. V_{NI}

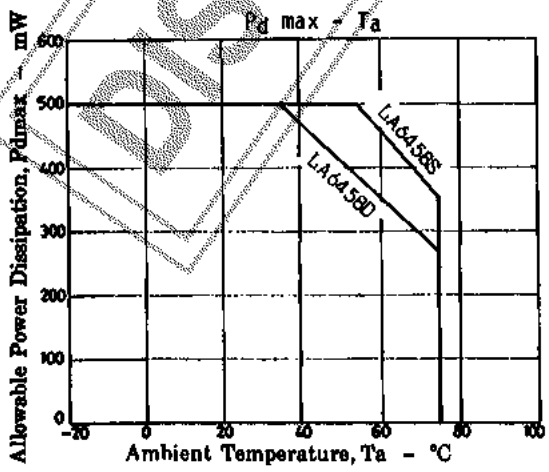


$$V_{NI} = \frac{V_O}{100}$$

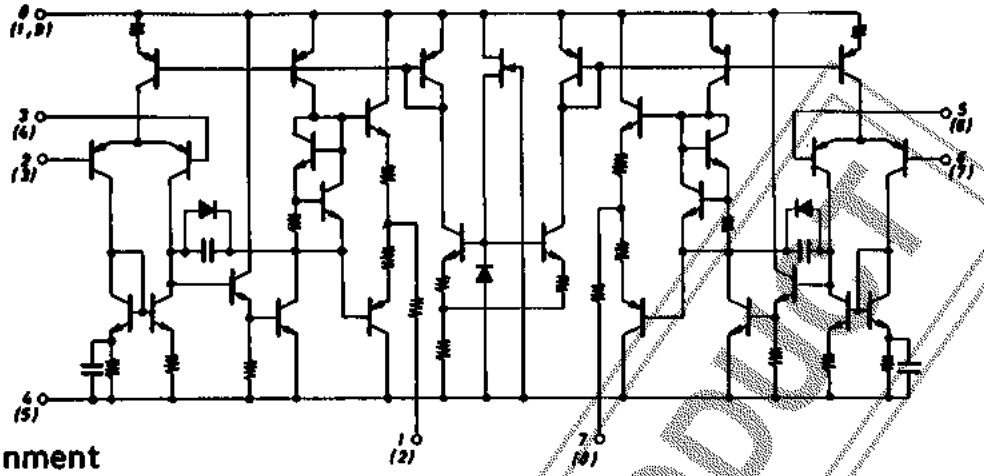
8. I_{CO}



Unit (resistance:Ω)

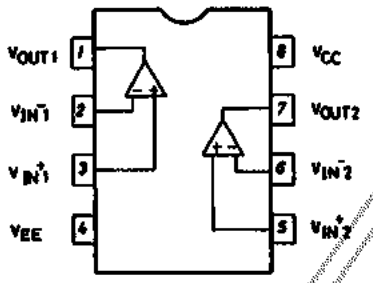


Equivalent Circuit : ( ) of pin No. : LA6458S

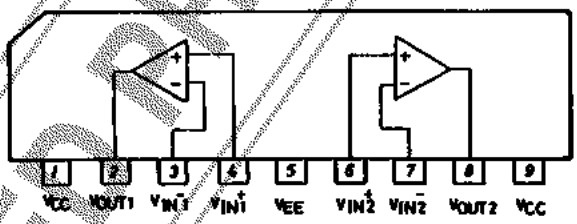


Pin Assignment

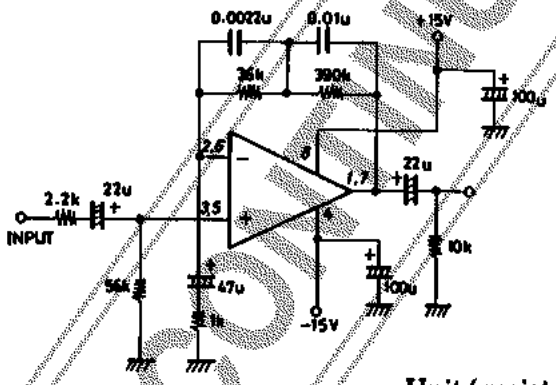
[LA6458D]



[LA6458S]



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



Unit (resistance:Ω capacitance:F)