



PRODUCT NAME : TL064 Low Power JFET
Quad Op-Amp

PRICE : Rs 25.00

SKU : RM2062



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DESCRIPTION

Features

- Improved DC and AC Characteristics over the TL07x Family
- Input Offset Voltage: 5.5 mV
- Input Offset Current: 4 pA
- Input Bias Current: 2 pA
- Input Bias Current: 20 pA
- Common Mode Rejection: 84 dB
- Supply Current: 8.1 mA

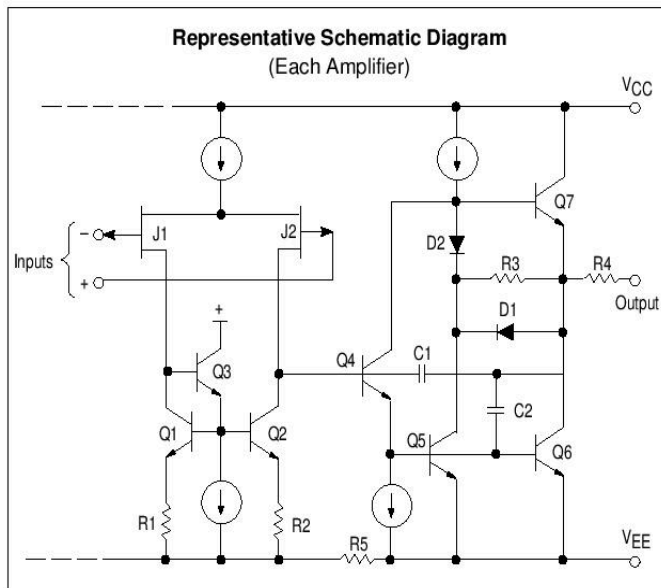


Low Power JFET Input Operational Amplifiers

These JFET input operational amplifiers are designed for low power applications. They feature high input impedance, low input bias current and low input offset current. Advanced design techniques allow for higher slew rates, gain bandwidth products and output swing.

The commercial and vehicular devices are available in Plastic dual in-line and SOIC packages.

- Low Supply Current: 200 μ A/Amplifier
- Low Input Bias Current: 5.0 pA
- High Gain Bandwidth: 2.0 MHz
- High Slew Rate: 6.0 V/ μ s
- High Input Impedance: $10^{12} \Omega$
- Large Output Voltage Swing: ± 14 V
- Output Short Circuit Protection



ORDERING INFORMATION

Op Amp Function	Device	Operating Temperature Range	Package
Dual	TL062CD, ACD TL062CP, ACP	$T_A = 0^\circ$ to $+70^\circ\text{C}$	SO-8 Plastic DIP
	TL062VD TL062VP	$T_A = -40^\circ$ to $+85^\circ\text{C}$	SO-8 Plastic DIP
Quad	TL064CD, ACD TL064CN, ACN	$T_A = 0^\circ$ to $+70^\circ\text{C}$	SO-14 Plastic DIP
	TL064VD TL064VN	$T_A = -40^\circ$ to $+85^\circ\text{C}$	SO-14 Plastic DIP

Order this document by TL062/D

TL062 TL064

LOW POWER JFET INPUT OPERATIONAL AMPLIFIERS

SEMICONDUCTOR TECHNICAL DATA

DUAL

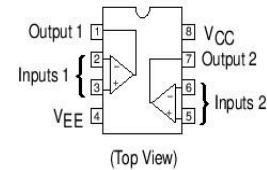


P SUFFIX
PLASTIC PACKAGE
CASE 626

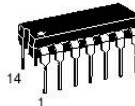


D SUFFIX
PLASTIC PACKAGE
CASE 751
(SO-8)

PIN CONNECTIONS



QUAD

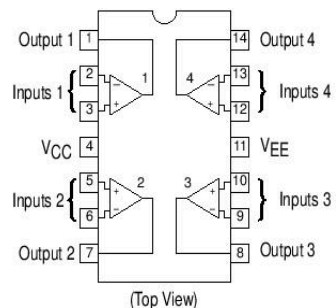


N SUFFIX
PLASTIC PACKAGE
CASE 646



D SUFFIX
PLASTIC PACKAGE
CASE 751A
(SO-14)

PIN CONNECTIONS



TL062 TL064

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage (from V_{CC} to V_{EE})	V_S	+36	V
Input Differential Voltage Range (Note 1)	V_{IDR}	± 30	V
Input Voltage Range (Notes 1 and 2)	V_{IR}	± 15	V
Output Short Circuit Duration (Note 3)	t_{SC}	Indefinite	sec
Operating Junction Temperature	T_J	+150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-60 to +150	$^{\circ}C$

- NOTES:**
1. Differential voltages are at the noninverting input terminal with respect to the inverting input terminal.
 2. The magnitude of the input voltage must never exceed the magnitude of the supply or 15 V, whichever is less.
 3. Power dissipation must be considered to ensure maximum junction temperature (T_J) is not exceeded. (See Figure 1.)

ELECTRICAL CHARACTERISTICS ($V_{CC} = +15\text{ V}$, $V_{EE} = -15\text{ V}$, $T_A = 0^{\circ}$ to $+70^{\circ}C$, unless otherwise noted.)

Characteristics	Symbol	TL062AC TL064AC			TL062C TL064C			Unit
		Min	Typ	Max	Min	Typ	Max	
Input Offset Voltage ($R_S = 50\ \Omega$, $V_O = 0\text{ V}$) $T_A = 25^{\circ}C$ $T_A = 0^{\circ}$ to $+70^{\circ}C$	V_{IO}	— —	3.0 —	6.0 7.5	— —	3.0 —	15 20	mV
Average Temperature Coefficient for Offset Voltage ($R_S = 50\ \Omega$, $V_O = 0\text{ V}$)	$\Delta V_{IO}/\Delta T$	—	10	—	—	10	—	$\mu V/^{\circ}C$
Input Offset Current ($V_{CM} = 0\text{ V}$, $V_O = 0\text{ V}$) $T_A = 25^{\circ}C$ $T_A = 0^{\circ}$ to $+70^{\circ}C$	I_{IO}	— —	0.5 —	100 2.0	— —	0.5 —	200 2.0	pA nA
Input Bias Current ($V_{CM} = 0\text{ V}$, $V_O = 0\text{ V}$) $T_A = 25^{\circ}C$ $T_A = 0^{\circ}$ to $+70^{\circ}C$	I_{IB}	— —	3.0 —	200 2.0	— —	3.0 —	200 10	pA nA
Input Common Mode Voltage Range $T_A = 25^{\circ}C$	V_{ICR}	— -11.5	+14.5 -12.0	+11.5 —	— -11	+14.5 -12.0	+11 —	V
Large Signal Voltage Gain ($R_L = 10\text{ k}\Omega$, $V_O = \pm 10\text{ V}$) $T_A = 25^{\circ}C$ $T_A = 0^{\circ}$ to $+70^{\circ}C$	A_{VOL}	4.0 4.0	58 —	— —	3.0 3.0	58 —	— —	V/mV
Output Voltage Swing ($R_L = 10\text{ k}\Omega$, $V_{ID} = 1.0\text{ V}$) $T_A = 25^{\circ}C$ $T_A = 0^{\circ}$ to $+70^{\circ}C$	V_{O+} V_{O-} V_{O+} V_{O-}	+10 — +10 —	+14 -14 — —	— -10 -10 —	+10 — +10 —	+14 -14 — —	— -10 — -10	V
Common Mode Rejection ($R_S = 50\ \Omega$, $V_{CM} = V_{ICR}\text{ min}$, $V_O = 0\text{ V}$, $T_A = 25^{\circ}C$)	CMR	80	84	—	70	84	—	dB
Power Supply Rejection ($R_S = 50\ \Omega$, $V_{CM} = 0\text{ V}$, $V_O = 0$, $T_A = 25^{\circ}C$)	PSR	80	86	—	70	86	—	dB
Power Supply Current (each amplifier) (No Load, $V_O = 0\text{ V}$, $T_A = 25^{\circ}C$)	I_D	—	200	250	—	200	250	μA
Total Power Dissipation (each amplifier) (No Load, $V_O = 0\text{ V}$, $T_A = 25^{\circ}C$)	P_D	—	6.0	7.5	—	6.0	7.5	mW

