



Descriptions

Consisted of high voltage J-FET and bipolar transistors, the TL072CP is a high speed J-FET dual- channel operational amplifier, featured with high slew rate, low input offset and bias current and low offset voltage temperature rate. The TL072CP provides DIP-8 package forms.

Feature

- Lower Power Consumption
- Wide Common-Mode And Differential Voltage Ranges
- Low Input Bias And Offset Currents
- Output Short-Circuit Protection
- High Input Impedance
- High Slew Rate
- High Gain-Bandwidth up to 4MHz

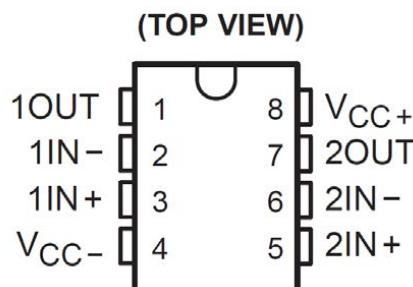
Applications

- Battery test equipment
- Pro audio mixers
- Single phase online UPS
- Solar energy: string and central inverter
- Three phase UPS
- Motor drives: AC and servo drive control and power stage modules

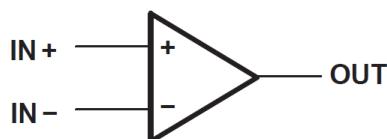
Ordering Information

Product Model	Package Type	Packing	Packing Qty
TL072CP	DIP-8	Tube	50pcs/Box

Pins Diagram

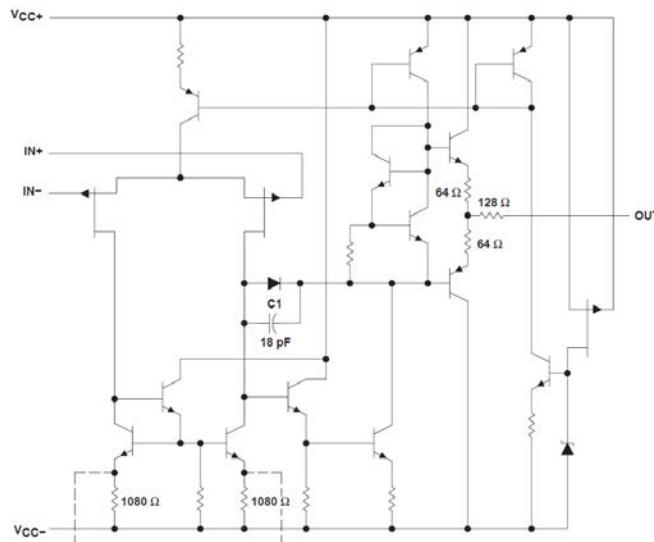


Symbol





Internal Diagram



Absolute Maximum Ratings

Symbol	Description	Parameter	Unit
V _{CC}	Supply Voltage	±18	V
V _i	Input Voltage	±14	V
V _{id}	Differential Input Voltage	±28	V
T _{oper}	Operating Temperature Range	0~70	°C
T _{stg}	Storage Temperature Range	-65~+150	°C

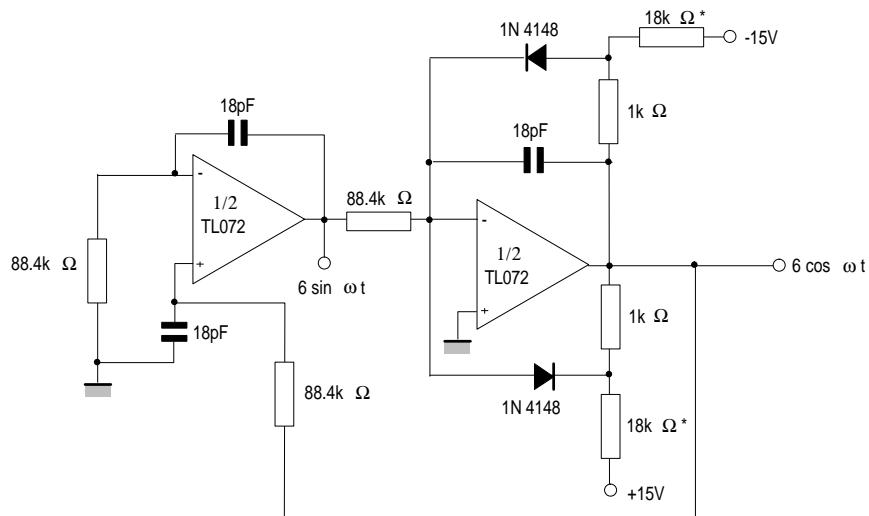
Electrical Parameter Characteristics

(V_{CC}=±15, T_{amp}=25°C , Unless otherwise specified)

Symbol	Parameter Name	Test Conditions	Parameter			Unit
			Min.	Typ.	Max.	
V _{IO}	Input Offset Voltage	V _O =0V		3	10	mV
I _o	Input Offset Current	V _O =0V			1.5	pA
I _{ib}	Input Bias Current	V _O =0V			2.5	nA
V _{icr}	Input Common Mode Voltage Range		-12	±11	15	V
V _{OM}	Maximum Peak Output Voltage Swing	R _L = 10 kΩ R _L ≥ 2 kΩ	±12 ±10	±13.5 ±12.5		V
A _{VD}	Large-signal differential voltage amplification	R _L ≥ 2 kΩ , V _O = ±10 V	80	95		dB
GB	Gain Bandwidth			3		MHz
CMRR	Common Mode Rejection Ratio		70	85		dB
kSVR	Supply Voltage Rejection Ratio	V _{CC} = ±15 V to ±9 V, V _O =0V	70	86		dB
I _{CC}	Static Supply Current (each amplifier)			1.4	2.8	mA
SR	Slew Rate	V _i = 10 V	8	13		V/us
t _R	Rise time			0.05		us

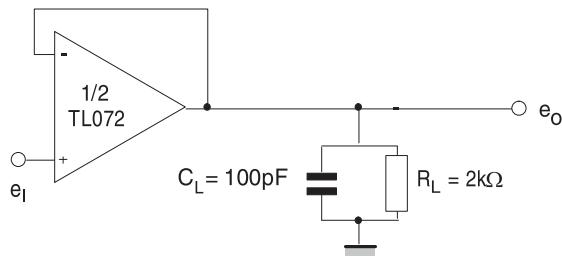


Typical Application (One Amplifier)

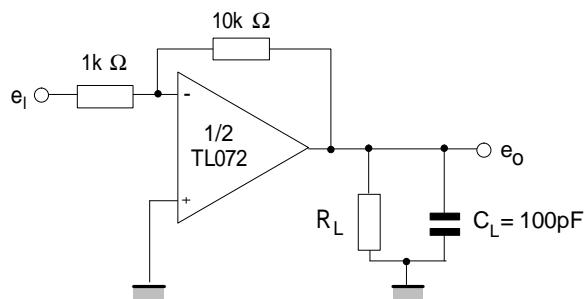


1. These resistor values may be adjusted for a symmetrical output.

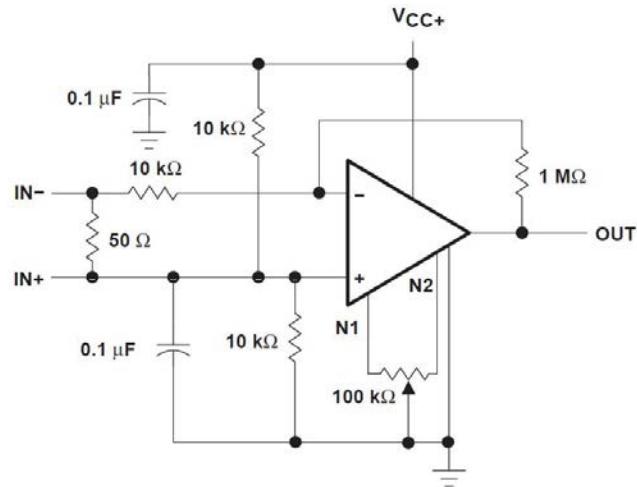
100kHz quadruple oscillator



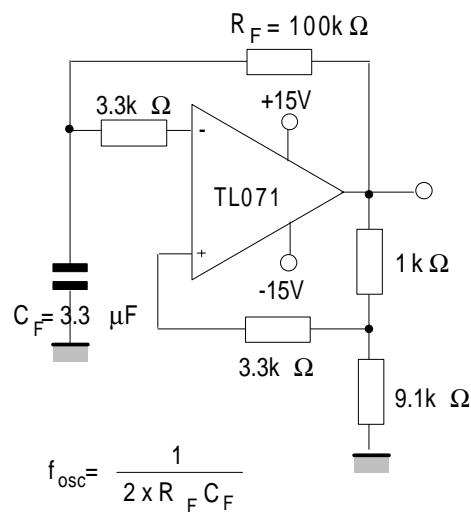
Voltage follower



Gain-of-10 inverting amplifier



AC amplifier

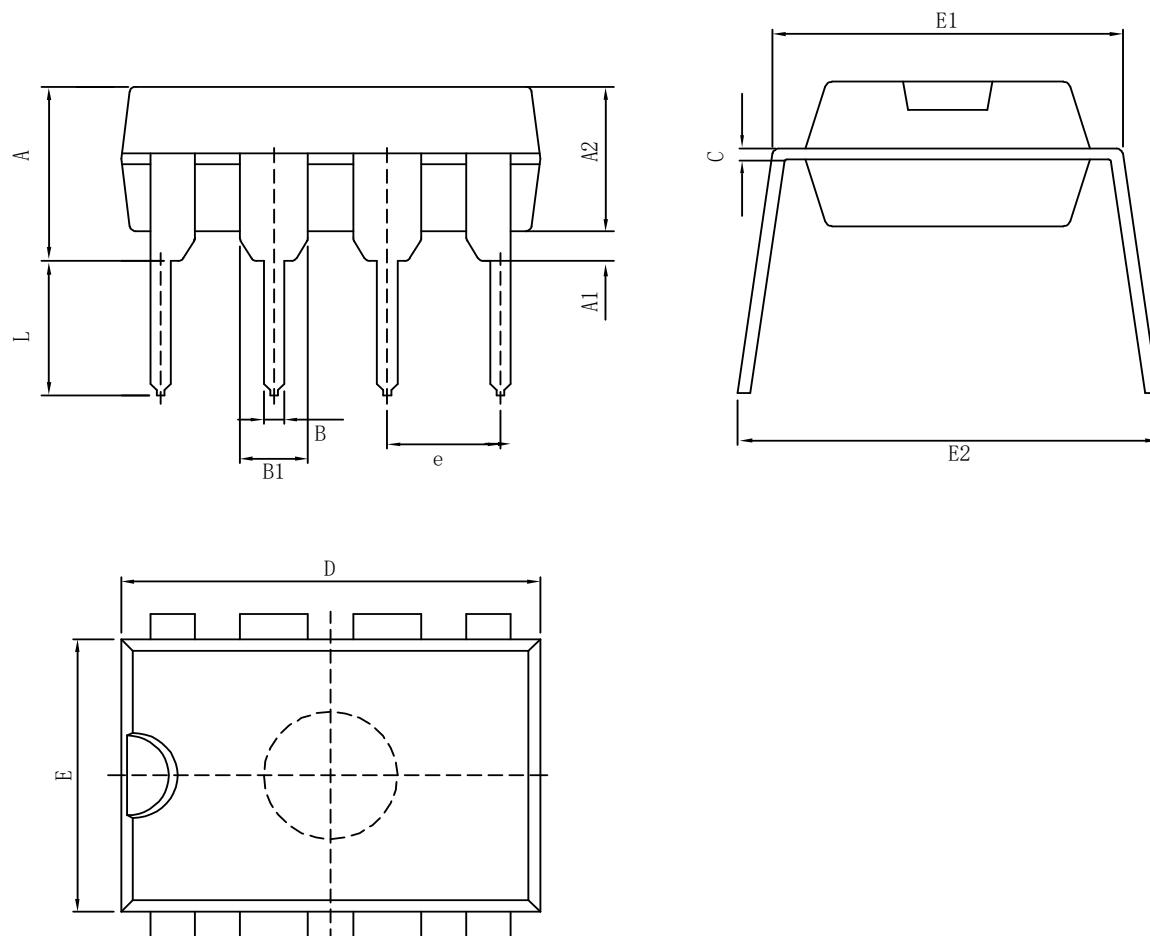


(0.5Hz) Square wave bscillatbr



Package Information

DIP-8



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Inches	
	Min(mm)	Max(mm)		Min(in)	Max(in)
A	3.710	4.310	A	0.146	0.170
A1	0.510		A1	0.020	
A2	3.200	3.600	A2	0.126	0.142
B	0.380	0.570	B	0.015	0.022
B1	1.524(BSC)		B1	0.060(BSC)	
C	0.204	0.360	C	0.008	0.014
D	9.000	9.400	D	0.354	0.370
E	6.200	6.600	E	0.244	0.260
E1	7.320	7.920	E1	0.288	0.312
e	2.540(BSC)		e	0.100(BSC)	
L	3.000	3.600	L	0.118	0.142
E2	8.400	9.000	E2	0.331	0.354



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