LINEAR INTEGRATED CIRCUIT UTC LM324

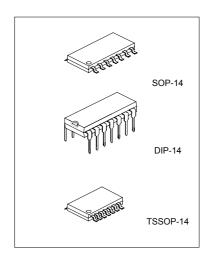
QUAD OPERATIONAL AMPLIFIERS

DESCRIPTION

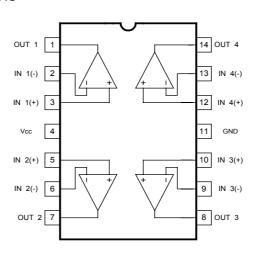
The UTC LM324 consists of four independent, high gain internally frequency compensated operational amplifiers which are designed specifically to operated from a single power supply over a wide voltage range. Operation from split power supplies is also possible. Application areas include transducer amplifier, DC gain blocks and all the conventional OP amp circuits which now can be easily implemented in single power supply system.

FEATURES

- *Internally frequency compensated for unity gain.
- *Large DC voltage gain :100dB.
- *Wide operating supply range (Vcc=3V~32V).
- *Input common-mode voltage includes ground.
- *Large output voltage swing: From 0V to Vcc-1.5V.
- *Power drain suitable for battery operation.



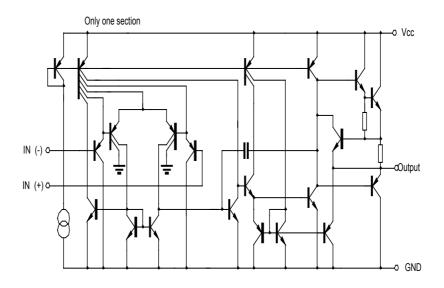
PIN CONFIGURATIONS



UTC UNISONIC TECHNOLOGIES CO., LTD.

UTCLM324 LINEAR INTEGRATED CIRCUIT

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

	(,		
PARAMETER	SYMBOL	VALUE	UNIT	
Supply Voltage	Vcc	+-18	V	
Differential Input Voltage	VIDiff)	32	V	
Input Voltage	VI	-0.3~32V	V	
Power Dissipation	Pd	570	mW	
Operating Temperature	Topr	0 to +70	°C	
Storage Temperature	Tstg	-65 to 150	°C	

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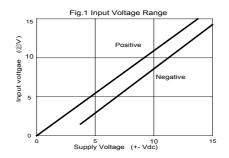
ELECTRICAL CHARACTERISTICS (Ta=25°C)

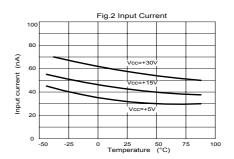
(Vcc=5.0V,All voltage referenced to GND unless otherwise specified)

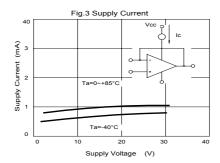
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP.	MAX	UNIT
Input Offset Voltage	Vio	VCM=0 to Vcc=-1.5 Vo(p)=1.4V,Rs=0			7	mV
Input Offset Current	lio				50	nA
Input Bias Current	lb				250	nA
Input Common-Mode Voltage Range	VI(R)	Vcc=30V	0	Vcc-1.5		V
Supply Current	Icc	RL=∞,Vcc=30V		1.0	3	mA
		Vcc=5V		0.7	1.2	mA
Large Signal Voltage Gain	Gv	Vcc=15V,R _L >2kΩ Vo(p)=1V to 11V	25	100		V/mV
	V(OH)	$Vcc=30V,R_L=2k\Omega$	26			V
Output Voltage Swing		Vcc=30V,R _I =10kΩ	27	28		V
	V(OL)	Vcc=5V,R _L >10kΩ		5	20	mV
Common-Mode Rejection Ratio	CMRR		65	75		dB
Power Supply Rejection Ratio	PSRR		65	100		dB
Channel Separation	CS	f=1kHz to 20kHz		120		dB
Short Circuit to GND	Isc			40	60	mA
	Isource	VI(+)=1V,VI(-)=0 Vcc=15V,Vo(p)=2V	20	40		mA
Output Current	Isink	VI(+)=0V,VI(-)=1V Vcc=15V,Vo(p)=2V	10	13		mA
		VI(+)=1V,VI(-)=0 Vcc=15V,Vo(p)=200mV	12	45		μА
Differential Input Voltage	VI(diff)	_			Vcc	V

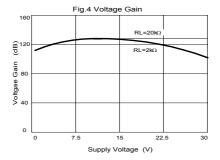
LINEAR INTEGRATED CIRCUIT UTC LM324

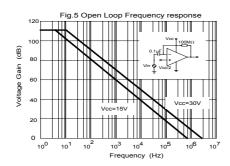
TYPICAL PERFORMANCE CHARACTERISTICS

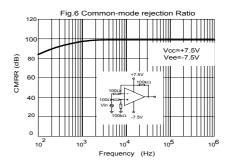




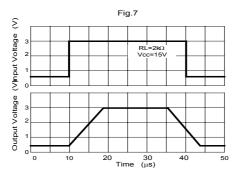


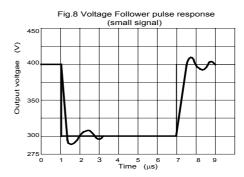


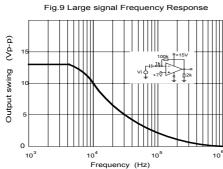


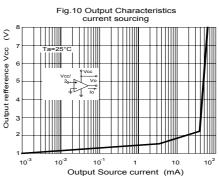


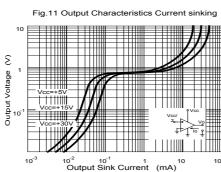
UTCLM324 LINEAR INTEGRATED CIRCUIT

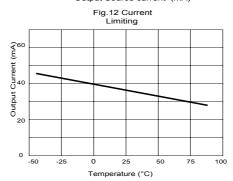












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