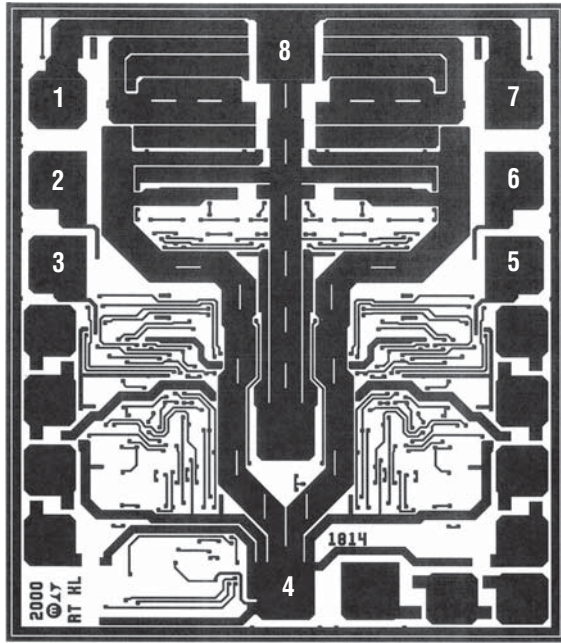


RH1814
Dual 3mA, 100MHz, 750V/ μ s
Operational Amplifier


40mils \times 45mils,
 Thickness: 12mils.
 Backside metal: Gold.

PAD FUNCTION


1. OUTPUT A
2. -INA
3. +INA
4. V^-
5. +INB
6. -INB
7. OUTPUT B
8. V^+

DIE CROSS REFERENCE

LTC Finished Part Number	Order DICE CANDIDATE Part Number Below
RH1814	RH1814 DICE

Please refer to LTC standard product data sheet for other applicable product information.

Note: Backside (substrate) maybe connected to V^- or no connection.

 LT, LTC and LTM are registered trademarks of Linear Technology Corporation. All other trademarks are the property of their respective owners.

ABSOLUTE MAXIMUM RATINGS

(Note 1)

Supply Voltage.....	12.6V	Output Short-Circuit Duration	Indefinite
Differential Input Voltage (Note 2).....	$\pm 6V$	Junction Temperature	150°C
Input Voltage.....	$\pm V_S$		

DICE ELECTRICAL TEST LIMITS

$V_S = \pm 5V$, $V_{CM} = 0V$, $T_A = 25^\circ C$ unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
V_{OS}	Input Offset Voltage	(Note 3)		1.5	mV
I_{OS}	Input Offset Current			400	nA
I_B	Input Bias Current			± 4	μA
R_{IN}	Input Resistance	$V_{CM} = \pm 3.5V$	3		M Ω
A_{VOL}	Large-Signal Voltage Gain	$V_O = \pm 3V$, $R_L \geq 500\Omega$	1.5		V/mV
		$V_O = \pm 3V$, $R_L \geq 100\Omega$	1		V/mV
	Input Voltage Range	Guaranteed by CMRR	± 3.5		V
CMRR	Common-Mode Rejection Ratio	$V_{CM} = \pm 3.5V$	75		dB

DICE SPECIFICATION

RH1814

DICE ELECTRICAL TEST LIMITS $V_S = \pm 5V, V_{CM} = 0V, T_A = 25^\circ C$ unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
PSRR	Power Supply Rejection Ratio	$V_S = \pm 2V$ to $\pm 5.5V$	78		dB
	Channel Separation	$V_O = \pm 3V, R_L = 100\Omega$	82		dB
V_{OUT}	Output Voltage Swing	$R_L = 500\Omega, 30mV$ Overdrive	± 3.8		V
		$R_L = 100\Omega, 30mV$ Overdrive	± 3.35		V
I_{OUT}	Maximum Output Current	$V_{OUT} = \pm 3V, 30mV$ Overdrive	± 40		mA
I_{SC}	Output Short-Circuit Current	$V_{OUT} = 0V, 1V$ Overdrive	± 75		mA
I_S	Supply Current	Per Amplifier		3.6	mA

DICE ELECTRICAL TEST LIMITS (Pre-Irradiation)

$V_S = 5V, V_{CM} = 0V, T_A = 25^\circ C$ unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
V_{OS}	Input Offset Voltage	(Note 3)		2	mV
I_{OS}	Input Offset Current			400	nA
I_B	Input Bias Current			± 4	μA
R_{IN}	Input Resistance	$V_{CM} = 1.5V$ to $3.5V$	3		M Ω
A_{VOL}	Large-Signal Voltage Gain	$V_O = 1.5V$ to $3.5V, R_L \geq 500\Omega$	1		V/mV
		$V_O = 1.5V$ to $3.5V, R_L \geq 100\Omega$	0.7		V/mV
	Input Voltage Range (Positive)	Guaranteed by CMRR	3.5		V
	Input Voltage Range (Negative)	Guaranteed by CMRR		1.5	V
CMRR	Common-Mode Rejection Ratio	$V_{CM} = 1.5V$ to $3.5V$	73		dB
PSRR	Power Supply Rejection Ratio	$V_S = \pm 2V$ to $\pm 5.5V$	78		dB
	Channel Separation	$V_{OUT} = 1.5V$ to $3.5V, R_L = 100\Omega$	81		mA
V_{OUT}	Output Voltage Swing (Positive)	$R_L = 500\Omega, 30mV$ Overdrive	3.9		V
		$R_L = 100\Omega, 30mV$ Overdrive	3.7		V
V_{OUT}	Output Voltage Swing (Negative)	$R_L = 500\Omega, 30mV$ Overdrive		1.1	V
		$R_L = 100\Omega, 30mV$ Overdrive		1.3	V
I_{OUT}	Maximum Output Current	$V_{OUT} = 1.5V$ to $3.5V, 30mV$ Overdrive	± 25		mA
I_{SC}	Output Short-Circuit Current	$V_{OUT} = 2.5V, 1V$ Overdrive	± 55		mA
I_S	Supply Current	Per Amplifier		4	mA

Note 1: Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. Exposure to any Absolute Maximum Rating condition for extended periods may affect device reliability and lifetime.

Note 2: Differential inputs of $\pm 6V$ are appropriate for transient operation only, such as during slewing. Large sustained differential inputs can cause excessive power dissipation and may damage the part.

Note 3: Input offset voltage is pulse tested and is exclusive of warm-up drift.

Wafer level testing is performed per the indicated specifications for dice. Considerable differences in performance can often be observed for dice versus packaged units due to the influences of packaging and assembly on certain devices and/or parameters. Please consult factory for more information on dice performance and lot qualifications via lot sampling test procedures.

Dice data sheet subject to change. Please consult factory for current revision in production.

I.D.No. 66-13-1814