

**RH1028M/RH1128M**  
**Ultralow Noise Precision**  
**High Speed Op Amps**
**PAD FUNCTION**

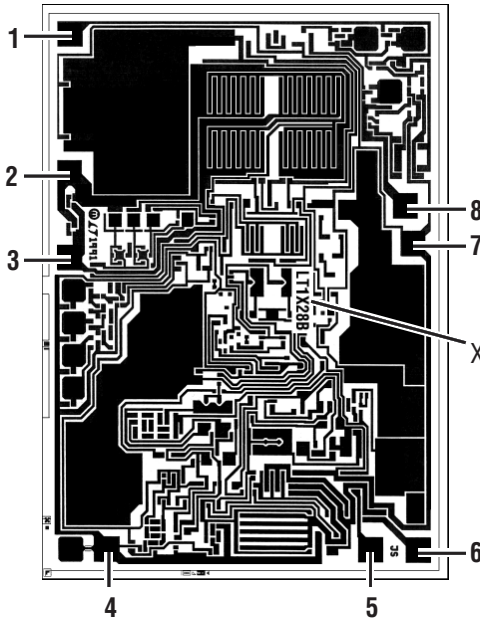
1.  $V_{OS}$  TRIM
2.  $-IN$
3.  $+IN$
4.  $V^-$
5. OVER-COMP
6. OUT
7.  $V^+$
8.  $V_{OS}$  TRIM

**DIE CROSS REFERENCE**

LTC Finished Part Number	Order Part Number
RH1028MW RH1028MW	RH1028 DICE RH1028 DWF*
RH1128MW RH1128MW	RH1128 DICE RH1128 DWF*


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

\*DWF = DICE in wafer form.



X = 0 for LT1028B,  
1 for LT1128B

114mils × 81mils,  
Backside (substrate) metal: Alloyed gold layer  
Backside potential: Connect to  $V^-$

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**DICE/DWF ELECTRICAL TEST LIMITS**  $V_S = \pm 15V$ ,  $T_A = 25^\circ C$ ,  $V_{CM} = 0V$ , unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
$V_{OS}$	Input Offset Voltage (Note 1)			300	$\mu V$
$I_{OS}$	Input Offset Current	$V_{CM} = 0V$		150	nA
$I_B$	Input Bias Current	$V_{CM} = 0V$		$\pm 400$	nA
$V_{IN}$	Input Voltage Range		$\pm 11$		V
CMRR	Common Mode Rejection Ratio	$V_{CM} = \pm 11V$ $V_{CM} = \pm 10.3V$	110		dB
PSRR	Power Supply Rejection Ratio	$V_S = \pm 4V$ to $\pm 16V$ $V_S = \pm 4.5V$ to $\pm 16V$	110		dB
$A_{VOL}$	Large Scale Voltage Gain	$R_L \geq 2k$ , $V_O = \pm 10V$ $R_L \geq 1k$ , $V_O = \pm 10V$ $R_L \geq 600\Omega$ , $V_O = \pm 10V$	5 3.5 2		$V/\mu V$ $V/\mu V$ $V/\mu V$
$V_{OUT}$	Maximum Output Voltage Swing	$R_L \geq 2k$ $R_L \geq 600\Omega$	$\pm 12$ $\pm 10.5$		V V

# DICE/DWF SPECIFICATION

## RH1028M/RH1128M

### DICE/DWF ELECTRICAL TEST LIMITS $V_S = \pm 15V$ , $T_A = 25^\circ C$ , $V_{CM} = 0V$ , unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
SR	Slew Rate	$A_{VCL} = -1$ (RH1028)	11		V/ $\mu$ s
		$A_{VCL} = -1$ (RH1128)	4.5		V/ $\mu$ s
$I_S$	Supply Current			10.5	mA

**Note 1:** Input offset voltage measurements are performed by automatic test equipment approximately 0.5 seconds after application of power.

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.

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