



59mils × 78mils,  
 Backlap: 12mils  
 Backside (substrate) is an alloyed gold layer.

**DIE CROSS REFERENCE (Notes 1 and 2)**

LTC Finished Part Number	Order DICE CANDIDATE Part Number Below
RH1056A RH1056A	RH1056 DICE RH1056 DWF*

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

\*DWF = DICE in wafer form.

**PAD FUNCTION**

1. BALANCE
2. - IN
3. + IN
4. V<sup>-</sup>
5. BALANCE
6. OUT
7. V<sup>+</sup>

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**DICE ELECTRICAL TEST LIMITS (Note 3)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
V <sub>OS</sub>	Input Offset Voltage	(Note 3)		0.5	mV
I <sub>OS</sub>	Input Offset Current	(Note 4)		50	pA
I <sub>B</sub>	Input Bias Current	(Note 4)		200	pA
A <sub>VOL</sub>	Large Signal Voltage Gain	V <sub>O</sub> = ±10V, R <sub>L</sub> = 2k	120		V/mV

# DICE/DWF SPECIFICATION

## RH1056

### DICE ELECTRICAL TEST LIMITS (Note 3)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
$V_{OUT}$	Output Voltage Swing	$R_L = 2k, V_S = \pm 15V$	$\pm 12$		V
CMRR	Common Mode Rejection Ratio	$V_{CM} = \pm 11V, V_S = \pm 15V$	86		dB
PSRR	Power Supply Rejection Ratio	$V_S = \pm 10V$ to $\pm 18V$	88		dB
SR	Slew Rate	(Note 5)	10		V/ $\mu$ s
$I_S$	Supply Current			6	mA

**Note 1:** Dice are probe tested at 25°C to the limits shown. Final specs, after assembly cannot be guaranteed at the die level due to yield loss and assembly shifts. For absolute maximum ratings, typical specifications, performance curves and finished product specifications, please refer to the standard product data sheet.

**Note 2:** For dice tested to tighter limits than those listed above and/or, lot qualification based on sample lot assembly and testing, please contact LTC Marketing.

**Note 3:**  $V_S = \pm 15V, T_A = 25^\circ C, V_{CM} = 0V$ , unless otherwise noted.

**Note 4:** This is not a reflection of actual  $I_{OS}$  and  $I_B$ . Typical values are 5pA and 20pA respectively at final test. JFETs sensitivity to light at wafer sort requires a loose limit.

**Note 5:** Tested at a gain of "5".

Rad Hard die require special handling as compared to standard IC chips.

Rad Hard die are susceptible to surface damage because there is no silicon nitride passivation as on standard die. Silicon nitride protects the die surface from scratches by its hard and dense properties. The passivation on Rad Hard die is silicon dioxide that is much "softer" than silicon nitride.

LTC recommends that die handling be performed with extreme care so as to protect the die surface from scratches. If the need arises to move the die around from the chip tray, use a Teflon-tipped vacuum wand.

This wand can be made by pushing a small diameter Teflon tubing onto the tip of a steel-tipped wand. The inside diameter of the Teflon tip should match the die size for efficient pickup. The tip of the Teflon should be cut square and flat to ensure good vacuum to die surface. Ensure the Teflon tip remains clean from debris by inspecting under stereoscope.

During die attach, care must be exercised to ensure no tweezers touch the top of the die.

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.