

## 9X14 PECL J-LEAD CLOCK- PB FREE COMPLIANT (SEE PAGE TWO FOR PART NUMBERING SCHEME)

### ■ APPROVALS

|                                    |                       |
|------------------------------------|-----------------------|
| <b>RALTRON</b>                     | <b>CUSTOMER</b>       |
| Eng. approval, date: RONEN 3/20/03 | Name (please print):  |
| Sales approval, date:              | Title (please print): |
| Created by, date: RONEN 3/20/03    | Signature, date:      |
| Revision:                          |                       |

### ■ MECHANICAL SPECIFICATION

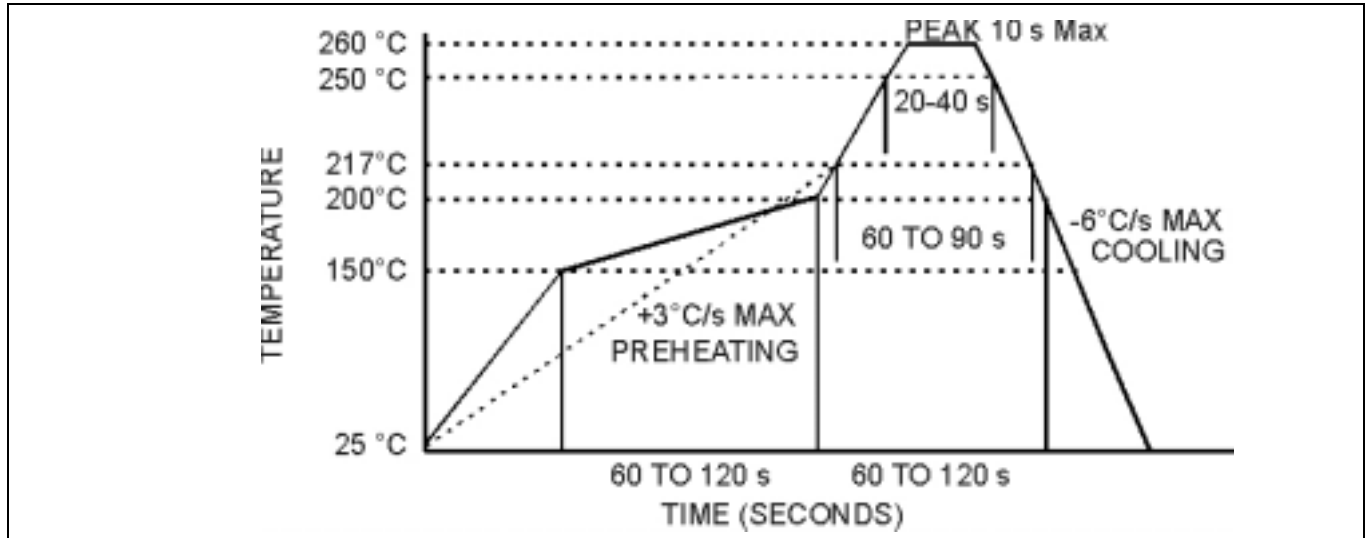
|                             |                             |   |
|-----------------------------|-----------------------------|---|
| <p><b>6 pin Version</b></p> | <p><b>4 pin Version</b></p> | <p><b>OUTLINE TOLERANCE:</b><br/>±0.015" / 0.4mm<br/>(Unless otherwise specified)</p> <p><b>PIN FUNCTIONS (6 pins):</b><br/>[1] NC OR COMP. OUTPUT<br/>[2] EN / DIS OR NC<br/>[3] CASE / GROUND<br/>[4] OUTPUT<br/>[5] COMP. OUTPUT OR NC<br/>[6] SUPPLY VOLTAGE</p> <p><b>PIN FUNCTIONS (4 pins):</b><br/>[1] E / D OR N/C OR COMP. OUT<br/>[2] CASE / GROUND<br/>[3] OUTPUT<br/>[4] SUPPLY VOLTAGE</p> <p><b>MARKING (EXAMPLE):</b><br/>CE8950A-LZ<br/>155.520-T-C-EL<br/>RAL D/C</p> |
|-----------------------------|-----------------------------|---|

### ■ ELECTRICAL SPECIFICATION

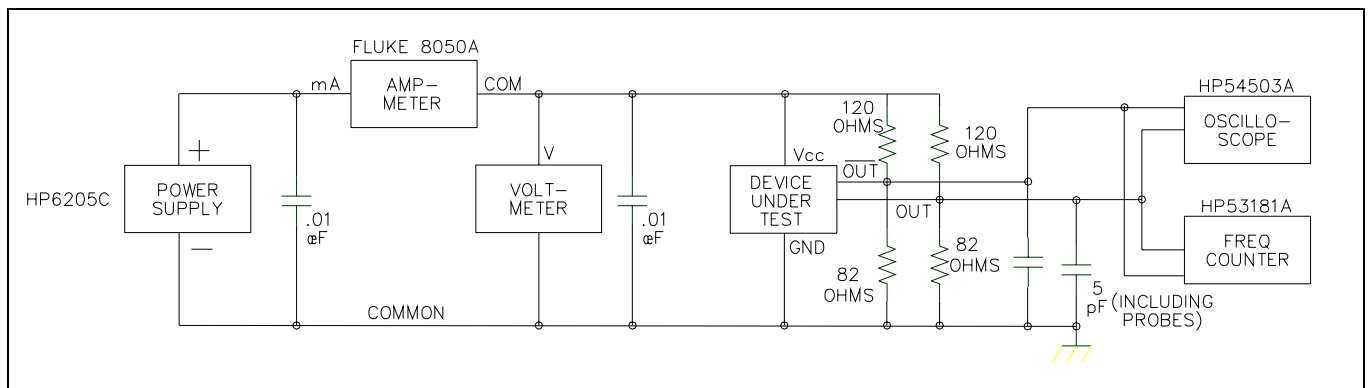
| PARAMETER                                | SYMBOL    | CONDITIONS   | VALUE  | UNIT |
|--|-----------|--|--|------|
| Frequency, nom                           | fo        | -  | 70.000~250.0   | MHz  |
| Supply voltage, nom.                     | Vcc       | Vcc±5%   | <b>3.3VDC</b>   <b>5.0VDC</b>  | V    |
| Supply current, max.<br>(excluding load) | Is        | Vcc=+3.3VDC/+5.0VDC<br>Ta=+25°C, 50Ω to Vcc-2.0VDC load  | 100  | mA   |
| PECL output level                        | VOH / VOL | Vcc=+3.3VDC/+5.0VDC load=50Ω to Vcc-2.0VDC   | 2.275 / 1.68   3.975/3.38  | V    |
| Duty cycle                               | DC        | load=50Ω to Vcc-2.0VDC / @50%Vcc, Ta=+25°C   | 40...60 OR 45...55   | %    |
| Rise- / fall time, max.                  | tr / tf   | 20%~80% Vout, 80%~20% Vout, max  | 0.100...1.0 (see note A)   | ns   |
| Jitter, rms, max.                        | J         | 1σ, Fj=12KHz...20MHz   | 1.0  | ps   |
| Overall freq. stability, max.            | Δf/fc     | Including operating temperature, ±5% load & supply variations, calibration @+25°C, and 10 year aging | SEE PART NUMBER GENERATION TABLE   | ppm  |
| Enable option                            | En        | Pin 2=Low, Vcc-1.620 (max.)  | Enabled  | -    |
| Disable option                           | Dis       | Pin 2=High, Vcc-1.025 (min.)   | Pin 4 will assume a fixed level of logic "0", and pin 5 will assume a fixed level of logic "1" | -    |
| Operating temperature range              | Ta        | -  | SEE PART NUMBER GENERATION TABLE   | °C   |
| Storage temperature range                | T(stg)    | -  | -55...+90  | °C   |
| Absolute voltage range                   | Vcc(abs)  | Non-destructive, DC  | -0.5...+7.0  | V    |

3/20/03 marketing-rfq, clock

NOTE A: RISE AND FALL TIME VALUES (tr/TF) ARE FREQUENCY DEPENDENT.



### ELECTRICAL TEST DIAGRAM FOR 3.3V PECL CLOCK WITH COMP. OUTPUT



### PART NUMBER GENERATION

| SERIES   | OVERALL STABILITY         | REV | TEMP. RANGE (°C)  | FREQUENCY (MHz) | OPTIONS  | SUFFIX             | PIN SUFFIX OPTION |
|--|---------------------------|-----|---|-----------------|--|--------------------|-------------------|
| CO88: 5.0V PECL, NO EN/DIS<br>CO89: 3.3V PECL, NO EN/DIS<br>CE88: 5.0V PECL, EN/DIS<br>CE89: 3.3V PECL, EN/DIS | 50: ±50ppm<br>00: ±100ppm | A   | LV: 0...50<br>LZ: 0...+70<br>HZ: -20...+70<br>D3: -40...+85 | 70.000...250.0  | T: 45...55 DUTY<br>C: COMP. OUTPUT<br>C1: COMP. OUTPUT PIN 1<br>(See Note 3) | EL<br>(See note 2) | 4: 4 PINS         |

### NOTE:

5/13/02rketing-rfq, vcxo

- Variations from standard specification are available, please contact factory.
- EL is added at the end of the part number for all PECL clocks with enable/disable option.
- C1 suffix to be applied only when using the 6 pins package version

PART NUMBER EXAMPLE: CE8950A-LZ-155.520-T-C-EL