

### LVDS CLOCK OSCILLATOR

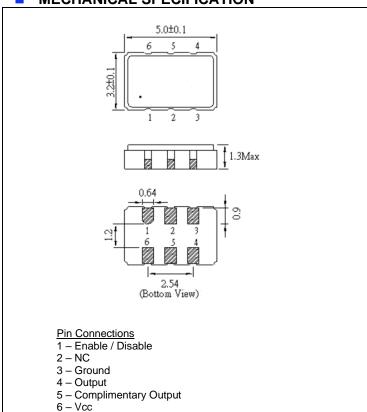
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### CL5032-125.000-2.5-25-X-T-TR

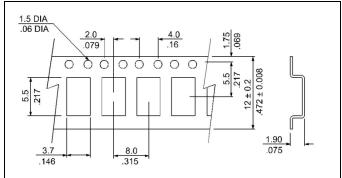
### ELECTRICAL SPECIFICATION

| PARAMETER                     | SYMBOL             | CONDITIONS   | VALUE                                 | UNIT |
|-------------------------------|--------------------|--|---------------------------------------|------|
| Nominal Frequency             | fo                 | Ta=25°C  | 125.000                               | MHz  |
| Supply Voltage                | Vcc                | Vcc ±5%  | 2.5                                   | VDC  |
| Supply current, max           | Is                 | Vcc; Ta=+25°C;   | 60                                    | mA   |
| Operating Temperature Range   | Та                 |  | -40 to +85                            | °C   |
| Storage temperature           | T <sub>(stg)</sub> | Absolute max   | -55 to +125                           | °C   |
| Output Logic Type             |                    |  | LVDS                                  |      |
| Overall Freq. Stability, Max. | Δf/fo              | Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, Aging, Shock and Vibration | ±25                                   | ppm  |
| Output Voltage                | Vol                | Logic "0" Level  | 0.9 Min                               | VDC  |
|                               | V <sub>OH</sub>    | Logic "1" Level  | 1.6 Max                               | VDC  |
| Output Load                   |                    | Connected between Out and Complementary Out  | 100                                   | Ω    |
| E 11 /B: 11 E ::              | E/D                | Pin 1: N.C. (Open) or High (0.7 x Vcc)   | Pin 4 & 5 – Oscillation<br>(Enabled)  |      |
| Enable / Disable Function     | E/D                | Pin 1: Low (0.3 x Vcc)   | Pin 4 & 5 – High Impedance (Disabled) |      |
| Symmetry (Duty Cycle)         | DC                 | @50% Vdd   | 45 to 55                              | %    |
| Rise Time and Fall Time       | tr / tf            | @20% to 80% Vdd 1.0  |                                       | ns   |
| Jitter, RMS, max.             | J                  | 1σ, 12kHz < F <sub>j</sub> < 20MHz   | F <sub>j</sub> < 20MHz 1.0            |      |

### MECHANICAL SPECIFICATION



### CARRIER TAPE DIMENSIONS



NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

### PACKAGING

178 mm REEL DIAMETER 12 mm TAPE WIDTH, 8 mm PITCH QUANTITY: 1000 PIECES PER REEL

NOTE: A capacitor of 0.01 µF between Vcc and Ground is recommended

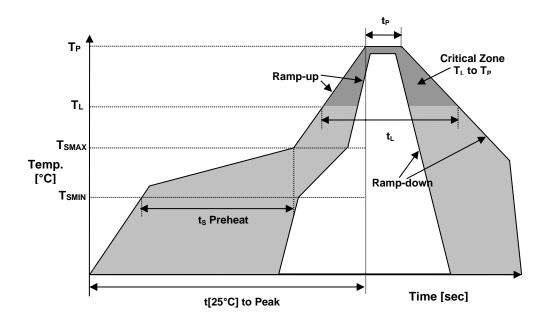


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### REFLOW PROFILE



| Reflow profile                                 |                   |              |  |
|--|-------------------|--------------|--|
| Temperature Min Preheat                        | T <sub>SMIN</sub> | 150°C        |  |
| Temperature Max Preheat                        | $T_{SMAX}$        | 200°C        |  |
| Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> ) | t <sub>S</sub>    | 60-180 sec.  |  |
| Temperature                                    | T∟                | 217°C        |  |
| Peak Temperature                               | $T_P$             | 260°C        |  |
| Ramp-up rate                                   | R <sub>UP</sub>   | 3°C/sec max. |  |
| Ramp-down rate                                 | R <sub>DOWN</sub> | 6°C/sec max. |  |
| Time within 5°C of Peak Temperature            | t <sub>P</sub>    | 10 sec.      |  |
| Time t[25°C] to Peak Temperature               | t[25°C] to Peak   | 480 sec.     |  |
| Time   | t <sub>L</sub>    | 60-150 sec.  |  |

### ENVIRONMENTAL

| PARAMETER                  | VALUE     |
|----------------------------|-----------|
| MOISTURE SENSITIVITY LEVEL | 1         |
| RoHS                       | Compliant |
| REACH-SVHC                 | Compliant |
| HALOGEN-FREE               | Compliant |
| TERMINATION FINISH         | Au        |





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#### MARKING

Rx125.0 •2AEyw

x – Internal Production ID code

 $y-Year\ code$ 

w - Week code

| YEAR CODE |      |  |
|-----------|------|--|
| Year      | Code |  |
| 2015      | 5    |  |
| 2016      | 6    |  |
| 2017      | 7    |  |
| 2018      | 8    |  |
| 2019      | 9    |  |
| 2020      | 0    |  |
| 2021      | 1    |  |
| 2022      | 2    |  |
| 2023      | 3    |  |
| 2024      | 4    |  |
| 2025      | 5    |  |

| ALPHA WEEK CODE TABLE |      |      |      |      |      |
|-----------------------|------|------|------|------|------|
| Week                  | Code | Week | Code | Week | Code |
| 1                     | а    | 19   | S    | 37   | K    |
| 2                     | b    | 20   | t    | 38   | L    |
| 3                     | С    | 21   | u    | 39   | М    |
| 4                     | d    | 22   | V    | 40   | N    |
| 5                     | е    | 23   | W    | 41   | 0    |
| 6                     | f    | 24   | х    | 42   | Р    |
| 7                     | g    | 25   | У    | 43   | Q    |
| 8                     | h    | 26   | Z    | 44   | R    |
| 9                     | i    | 27   | Α    | 45   | S    |
| 10                    | j    | 28   | В    | 46   | Т    |
| 11                    | k    | 29   | С    | 47   | U    |
| 12                    | I    | 30   | D    | 48   | V    |
| 13                    | m    | 31   | E    | 49   | W    |
| 14                    | n    | 32   | F    | 50   | Х    |
| 15                    | О    | 33   | G    | 51   | Υ    |
| 16                    | р    | 34   | Н    | 52   | Z    |
| 17                    | q    | 35   | I    |      |      |
| 18                    | r    | 36   | J    |      | _    |

#### APPROVAL

| RALTRON      |                      |  |
|--------------|----------------------|--|
| DRAWN BY:    | AR, January 18, 2019 |  |
| APPROVED BY: | CP, January 18, 2019 |  |
| REVISION:    | A, Initial Release   |  |

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