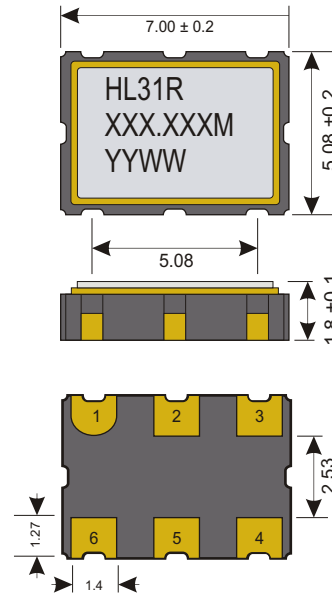




Specifications

| | | |
|--------------------------------|-------------------------|-------------------------|
| Part Number | | HL31R |
| Frequency (fo) | | 100.000MHz ~ 175.000MHz |
| Logic Family | | HCSL |
| Freq. Stability (Df/fo) | | ±100 ppm |
| Temp. Range | Operating (TOPR) | -10°C ~ +70°C |
| | Storage (TSTG) | -55°C ~ +125°C |
| Start Time | | 3.0mS |

Dimensions (mm)



RoHS
RoHS II
Lead
Reach
Compliant



Free Of
DRC
Conflict
Minerals

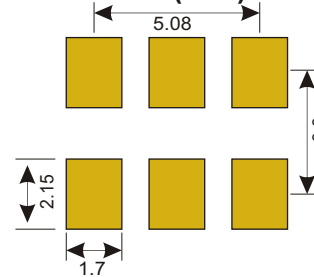
Phase Noise

| | | |
|---------------------------------------|-----------------|-------------------------|
| RMS Phase Jitter (12kHz-20MHz) | | 0.2pS (Typ) 0.6pS (Max) |
| Phase Noise | @ 100Hz Offset | -90 dBc/Hz |
| | @ 1KHz Offset | -120 dBc/Hz |
| | @ 10KHz Offset | -135 dBc/Hz |
| | @ 100KHz Offset | -140 dBc/Hz |
| | @ 1MHz Offset | -145 dBc/Hz |
| | @ 10MHz Offset | -155 dBc/Hz |

Electrical

| | | |
|-------------------------|-----------------------------|-------------------------------|
| Power Supply | Voltage (VDD) | 3.3 VDC ±5% |
| | Current (Icc) | 50 mA Max |
| Stand-by current | | 15uA Max |
| Output | “H” Output Voltage | 660mv Min 740mv Typ 850mv Max |
| | “L” Output Voltage | -150mv Min 0V Typ 150mv Max |
| | Output Swing (Vopp) | 400mv Min |
| | Output Load | 50 Ω |
| | Rise & Fall Time | 0.5nS Max (20% to 80%) |
| | Output Symmetry | 45/55% @ 50% Level |

Land Pattern (mm)



Tri-State

| | | |
|---------------------|--------------------------|-------------------------|
| Tri-State | Tri-State (Pin 1) | Output (Pin 4/5) |
| | Open (N/C) | Active |
| | 0.7Vdd (Min) | Active |
| | 0.3Vdd (Max) | Disable (High Z) |
| Enable Time | | 2.0mS Max |
| Disable Time | | 200nS Max |

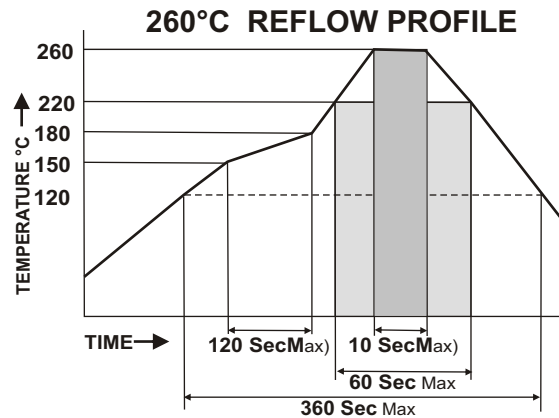
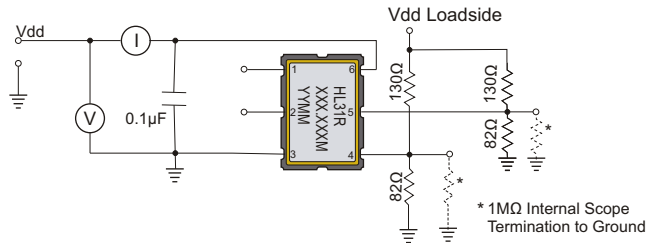
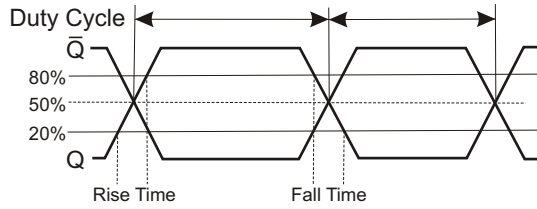
Connections

| | |
|--------------|------------------|
| Pin 1 | Enable / Disable |
| Pin 2 | No Connect |
| Pin 3 | Case/GND |
| Pin 4 | Output |
| Pin 5 | OutputN |
| Pin 6 | +Vdd |



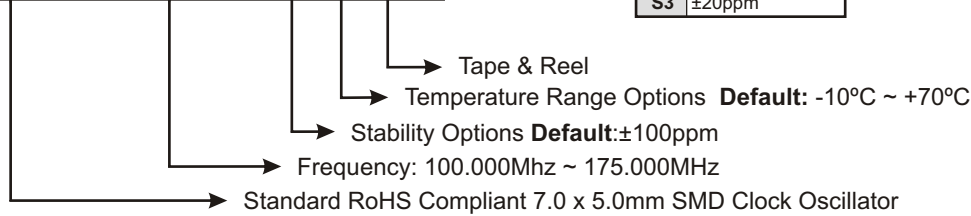
Environmental And Mechanical

| | |
|--------------------|---|
| Temperature | 10 Cycles of -30°C (30Mins), Normal (1Hr), 85°C (30Mins), Normal (1Hr) |
| Shock | Accelerated at 1000G for 1mS in each perpendicular axis. |
| Vibration | 4 Cycles of 20G acceleration at 20 - 2,000Hz within 4 Minutes in each perpendicular axis. |
| Solder | Peak Temperature of 260°C Max for 10 Seconds with preheat of 160°C for 90±10% for 10 Seconds for a Maximum of 2 Cycles. |



Part Number

HL31R -XXX.XXX M-SX RX-T



Stability

| | |
|-----------|--------|
| S1 | ±50ppm |
| S2 | ±25ppm |
| S3 | ±20ppm |

Temp Range

| | |
|-----------|-----------|
| R6 | -40~+85°C |
|-----------|-----------|

Example: **HL31R-155.000M-T** is 155.000MHz ±100ppm oscillator operating at -10°C ~ +70°C delivered on Tape & Reel
 Example: **HL31R-155.000M-S2R6-T** is 155.000MHz ±25ppm oscillator operating at -40°C ~ +85°C delivered on Tape & Reel

Tape & Reel

