



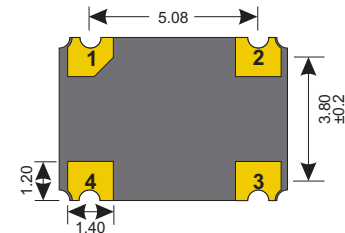
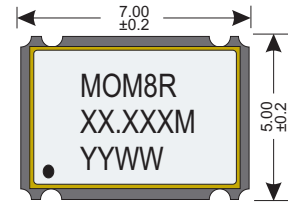
Specifications

| | | |
|-------------------------|-----------------------|----------------|
| Part Number | MOM8R | |
| Frequency (fo) | 1.000MHz ~ 125.000MHz | |
| Logic Family | HCMOS | |
| Freq. Stability (Df/fo) | ±100 ppm | |
| Temp. Range | Operating (TOPR) | -10°C ~ +70°C |
| | Storage (TSTG) | -55°C ~ +125°C |
| RMS Phase Jitter | 1pS Max RMS | |

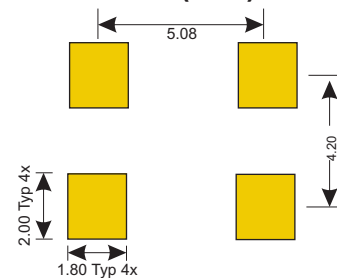
Electrical

| | | | | | | | | | |
|----------------------------|------------------|--|----------------------------|--------------------------|-------------------|------------------|-------------------|------|--------------------|
| Power Supply | Voltage (VDD) | 2.5 VDC ±10% | | | | | | | |
| | Current (Icc) | <table border="1"> <tr> <td>1.0MHz - 15.0Mhz</td> <td>8mA</td> </tr> <tr> <td>15.1MHz - 32.0Mhz</td> <td>15mA</td> </tr> <tr> <td>32.1MHz - 50.0Mhz</td> <td>25mA</td> </tr> <tr> <td>50.0MHz - 125.0MHz</td> <td>35mA</td> </tr> </table> | 1.0MHz - 15.0Mhz | 8mA | 15.1MHz - 32.0Mhz | 15mA | 32.1MHz - 50.0Mhz | 25mA | 50.0MHz - 125.0MHz |
| 1.0MHz - 15.0Mhz | 8mA | | | | | | | | |
| 15.1MHz - 32.0Mhz | 15mA | | | | | | | | |
| 32.1MHz - 50.0Mhz | 25mA | | | | | | | | |
| 50.0MHz - 125.0MHz | 35mA | | | | | | | | |
| Stand-by current | | 10uA Max | | | | | | | |
| Output | Load | <table border="1"> <tr> <td>1.0 - 50.0MHz</td> <td>50pF</td> </tr> <tr> <td>50.0 - 100.0MHz</td> <td>25pF</td> </tr> <tr> <td>100.1 - 125.0MHz</td> <td>15pF</td> </tr> </table> | 1.0 - 50.0MHz | 50pF | 50.0 - 100.0MHz | 25pF | 100.1 - 125.0MHz | 15pF | |
| | 1.0 - 50.0MHz | 50pF | | | | | | | |
| | 50.0 - 100.0MHz | 25pF | | | | | | | |
| 100.1 - 125.0MHz | 15pF | | | | | | | | |
| Voltage (VOL Max.) | 10% Vdd | | | | | | | | |
| Voltage (VOH Min.) | 90% Vdd | | | | | | | | |
| Start Time | | <table border="1"> <tr> <td>1.0MHz - 32.0MHz</td> <td>5mS Max</td> </tr> <tr> <td>32.1Mhz - 80.0MHz</td> <td>10mS Max</td> </tr> </table> | 1.0MHz - 32.0MHz | 5mS Max | 32.1Mhz - 80.0MHz | 10mS Max | | | |
| 1.0MHz - 32.0MHz | 5mS Max | | | | | | | | |
| 32.1Mhz - 80.0MHz | 10mS Max | | | | | | | | |
| Rise (Tr) & Fall (Tf) Time | | <table border="1"> <tr> <td>1.0MHz - 20.0MHz</td> <td>6nS Typ. 8ns Max</td> </tr> <tr> <td>20.1Mhz - 80.0MHz</td> <td>3nS Typ. 5ns Max</td> </tr> </table> | 1.0MHz - 20.0MHz | 6nS Typ. 8ns Max | 20.1Mhz - 80.0MHz | 3nS Typ. 5ns Max | | | |
| 1.0MHz - 20.0MHz | 6nS Typ. 8ns Max | | | | | | | | |
| 20.1Mhz - 80.0MHz | 3nS Typ. 5ns Max | | | | | | | | |
| Duty Cycle | | <table border="1"> <tr> <td>40/60% @ 50% Level (HCMOS)</td> </tr> <tr> <td>45/55% @ 50% Level (TTL)</td> </tr> </table> | 40/60% @ 50% Level (HCMOS) | 45/55% @ 50% Level (TTL) | | | | | |
| 40/60% @ 50% Level (HCMOS) | | | | | | | | | |
| 45/55% @ 50% Level (TTL) | | | | | | | | | |

Dimensions (mm)



Land Pattern (mm)



Tri-State

| U Option (Page 2) | Default | U2 |
|---------------------|-------------------------|-------------------------|
| 70%Vcc Min (Pin 1) | Enabled Active (Pin 3) | Disabled High Z (Pin 3) |
| N/C or Open (Pin 1) | Enabled Active (Pin 3) | Disabled High Z (Pin 3) |
| 30%Vcc Max (Pin 1) | Disabled High Z (Pin 3) | Enabled Active (Pin 3) |
| Enable Time | 10mS Max | 10mS Max |
| Disable Time | 150nS Max | 150nS Max |

Connections

| | |
|-------|-----------|
| Pin 1 | Tri-State |
| Pin 2 | Ground |
| Pin 3 | Output |
| Pin 4 | Vcc |



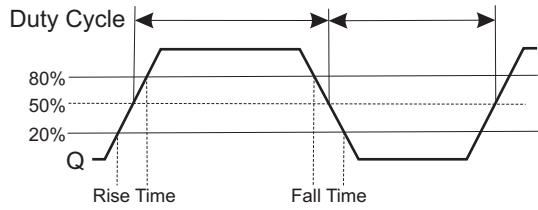
RoHS
RoHS2,
Lead,
Reach
Compliant



Free Of
DRC
Conflict
Minerals



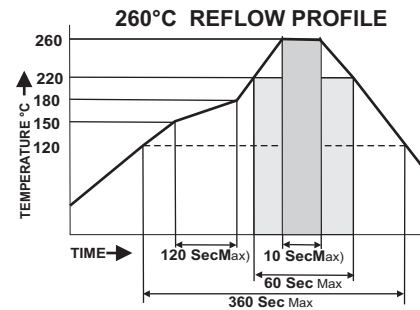
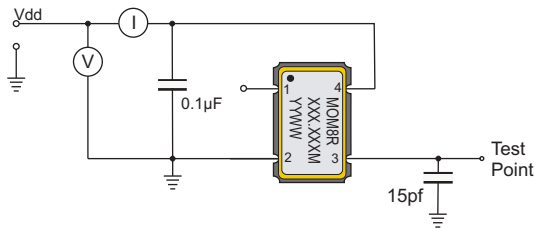
Waveform



Environmental And Mechanical

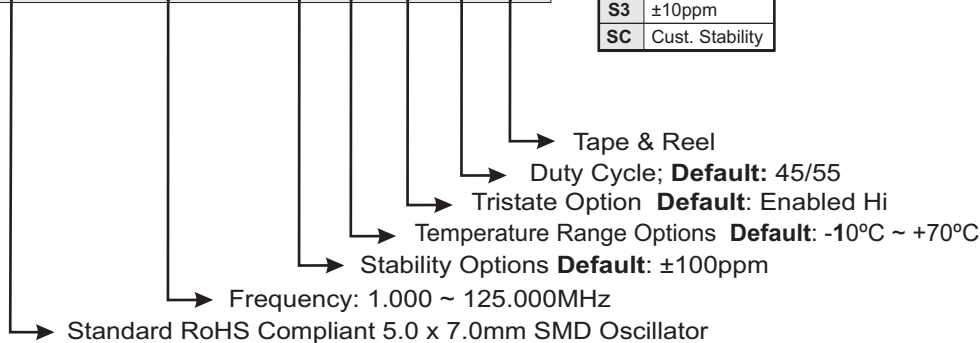
| | |
|--------------------|---|
| Temperature | 10 Cycles of -30°C (30Mins), Normal (1Hr), 85°C (30Mins), Normal (1Hr) |
| Shock | Accelerated at 1000G for 1mS in each perpendicular axis. |
| Vibration | 4 Cycles of 20G acceleration at 20 - 2,000Hz within 4 Minutes in each perpendicular axis. |
| Solder | 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. |

HCMOS Test Circuit



Part Number

MOM8R-XX.XXXM - SX RX UX QX-T



Options not specified default to the values indicated on the data sheet.

Example: **MOM8R-50.000M-V4-T** is a MOM8R Package, 50.000MHz, 5.0Vdc, Operating at ±100ppm stability from -10°C ~ +70°C, Delivered on Tape & Reel

Example: **MOM8R -50.000M-V2S2R6-T** is a MOM8R Package, 50.000MHz, 5.0Vdc, operating at ±25ppm stability from -40°C ~ +85°C, Delivered on Tape & Reel

Tape & Reel

