

**Features**

- LVDS Output
- Stabilities to  $\pm 20$  PPM
- Operating Temperature Ranges to  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Supply Voltages: 2.5V, 3.3V

| 2.5V SPECIFICATIONS                             |                                                 |                 |
|-------------------------------------------------|-------------------------------------------------|-----------------|
| PARAMETERS                                      | MAX (Unless otherwise noted)                    |                 |
| Frequency Range                                 | 13.5 ~ 250MHz                                   |                 |
| Temperature Range                               |                                                 |                 |
| Storage ( $T_{\text{STG}}$ )                    | $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ |                 |
| Supply Voltage ( $V_{\text{DD}}$ )              | 2.5V $\pm 10\%$                                 | 3.3V $\pm 10\%$ |
| Input Current ( $I_{\text{DD}}$ )               | 50mA                                            |                 |
| Standby Current                                 | 15 $\mu\text{A}$                                |                 |
| Output Symmetry (50% $V_{\text{P-P}}$ )         | 45 % ~ 55 %                                     |                 |
| Rise Time (20%~80% $V_{\text{P-P}}$ )           | 500pS                                           |                 |
| Fall Time (80%~20% $V_{\text{P-P}}$ )           | 500pS                                           |                 |
| Differential Output Voltage ( $V_{\text{OD}}$ ) | 0.247V ~ 0.454V                                 |                 |
| Differential Offset Voltage ( $V_{\text{OS}}$ ) | 1.125V ~ 1.375V                                 |                 |
| Output Load (HCMOS)                             | 100 Ohms Typical                                |                 |
| Start-up Time ( $T_{\text{S}}$ )                | 10 mS                                           |                 |
| Output Disable Time <sup>1</sup>                | 200 $\mu\text{S}$                               |                 |
| Output Enable Time <sup>1</sup>                 | 10 mS                                           |                 |
| Aging (per year @ 25C)                          | $\pm 3$ PPM                                     |                 |
| Phase Jitter (12kHz~20MHz)                      | 1pS                                             |                 |

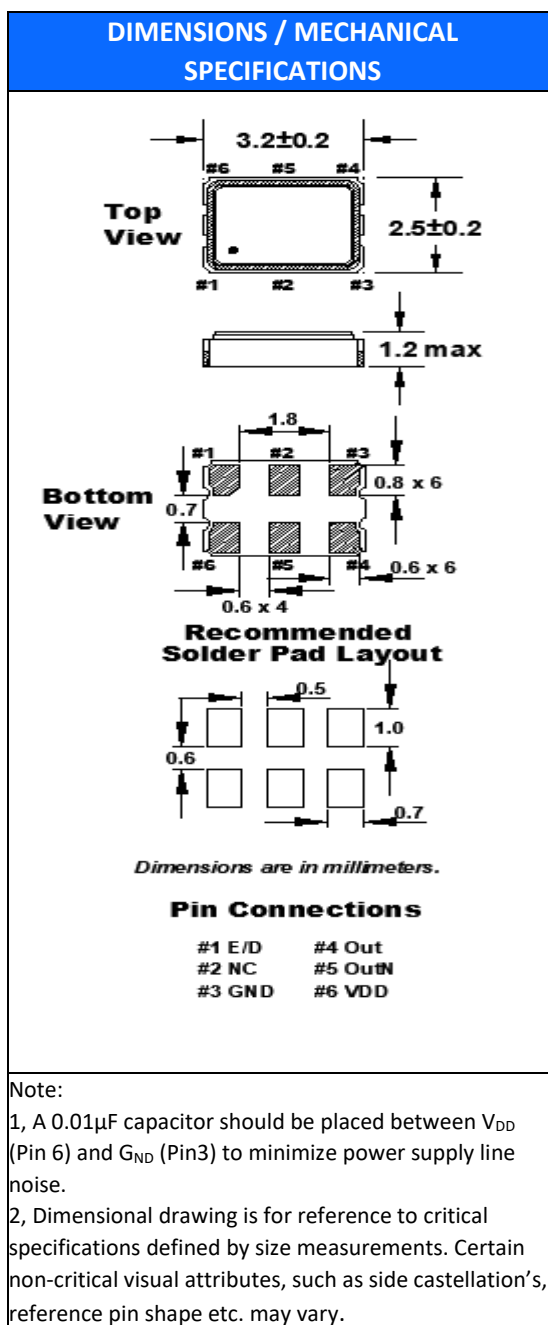
| ENABLE / DISABLE FUNCTION                        |                              |
|--------------------------------------------------|------------------------------|
| Pin <sup>1</sup>                                 | Out 1 (pin 4), Out 2 (pin 5) |
| OPEN <sup>1</sup>                                | Active                       |
| '1' Level $V_{\text{IH}} \geq 70\%V_{\text{DD}}$ | Active                       |
| '0' Level $V_{\text{IL}} \leq 30\%V_{\text{DD}}$ | High Z                       |

| Available Options by Stability & Operating Temp |                                              |                       |
|-------------------------------------------------|----------------------------------------------|-----------------------|
| Frequency Stability <sup>2</sup>                | Operating Temperature ( $^{\circ}\text{C}$ ) | Frequency Range (MHz) |
| $\pm 100$ PPM                                   | $-20 \sim +70$                               | 13.500 ~ 250.000      |
| $\pm 100$ PPM                                   | $-40 \sim +85$                               | 13.500 ~ 250.000      |
| $\pm 50$ PPM                                    | $-20 \sim +70$                               | 13.500 ~ 250.000      |
| $\pm 50$ PPM                                    | $-40 \sim +85$                               | 13.500 ~ 250.000      |
| $\pm 25$ PPM                                    | $-20 \sim +70$                               | 13.500 ~ 250.000      |
| $\pm 25$ PPM <sup>3</sup>                       | $-40 \sim +85$                               | 13.500 ~ 250.000      |
| $\pm 20$ PPM <sup>3</sup>                       | $-20 \sim +70$                               | 13.500 ~ 250.000      |

<sup>1</sup> An internal pull-up resistor from pin 1 to pin 6 allows active output if pin 1 is left open

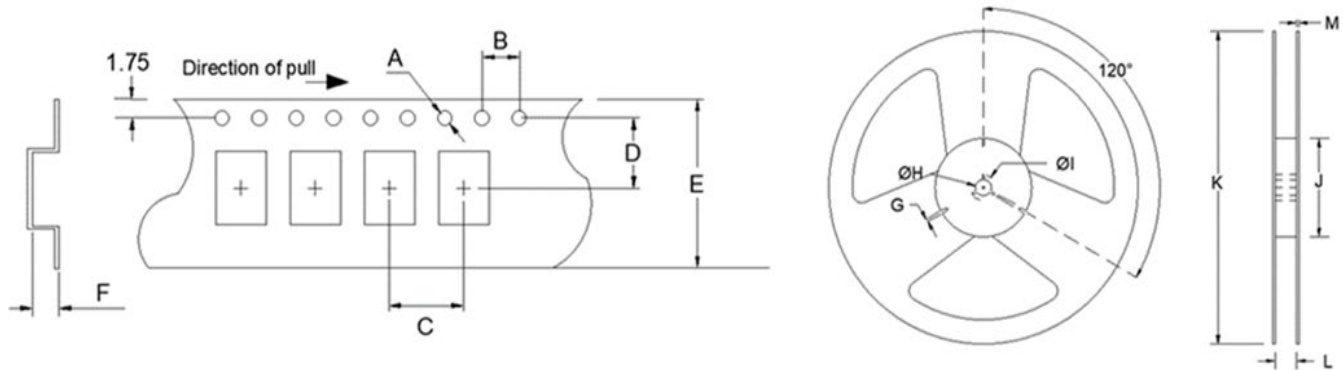
<sup>2</sup> Inclusive of  $25^{\circ}\text{C}$  tolerance, operating temperature range, input voltage change, load change, Shock, vibration, reflow, and one-year aging.

<sup>3</sup> Inclusive of  $25^{\circ}\text{C}$  tolerance and operating temperature range.



| STANDARD SPECIFICATIONS          |                              |
|----------------------------------|------------------------------|
| PARAMETERS                       | MAX (Unless otherwise noted) |
| Maximum Soldering Temp / Time    | 260°C / 10 Seconds x 2       |
| Moisture Sensitivity Level (MSL) | 1                            |
| Termination Finish               | Au over Ni                   |
| Seal Method                      | Seam                         |
| Lead (Pb) Free                   | Yes                          |
| ROHS/REACH Compliant             | Yes                          |

| TAPE SPECIFICATIONS (mm) |     |     |     |     |     |                            | REEL SPECIFICATIONS (mm) |     |     |     |      |     |     |
|--------------------------|-----|-----|-----|-----|-----|----------------------------|--------------------------|-----|-----|-----|------|-----|-----|
| A                        | B   | C   | D   | E   | F   | REEL QTY                   | G                        | H   | I   | J   | K    | L   | M   |
| ø1.5                     | 4.0 | 4.0 | 3.5 | 8.0 | 1.4 | -T1 = 1,000<br>-T3 = 3,000 | 2.0                      | ø13 | ø21 | ø60 | ø180 | 9.0 | 1.2 |



| Available Options & Part Identification for SMD LVDS Oscillator O3LS* |                     |                                                |                                                                               |                                                                      |                        |                                                                                 |
|-----------------------------------------------------------------------|---------------------|------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------|
| Sample PN: <b>FO3LSCDM125.0-T1</b>                                    |                     |                                                |                                                                               |                                                                      |                        |                                                                                 |
| F                                                                     | O3LS                | C                                              | D                                                                             | M                                                                    | 125.0                  | -T1                                                                             |
| <b>Fox</b>                                                            | <b>Model Number</b> | <b>Voltage</b><br>J = 2.5V±10%<br>C = 3.3V±10% | <b>Stability</b><br>A = ±100 PPM<br>B = ±50 PPM<br>D = ±25 PPM<br>E = ±20 PPM | <b>Operating Temperature</b><br>F = -20 to +70°C<br>M = -40 to +85°C | <b>Frequency (MHz)</b> | <b>Values Added Options</b><br>Blank = Bulk<br>T1 = 1,000 pcs<br>T3 = 3,000 pcs |

\* Not all frequencies in the frequency range, or every combination of stability, temp range, and voltage available. See stabilities and op temps for each V<sub>DD</sub>.

| Reliability Test Conditions                         |
|-----------------------------------------------------|
| Please contact Abracon Quality Assurance department |

# Mouser Electronics

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[BULK](#) [FO3LSCBM125.0-T1](#) [FO3LSCBM125.0-T3](#) [FO3LSCBM148.5-T3](#) [FO3LSCDF76.8-BULK](#) [FO3LSCDF76.8-T1](#)  
[FO3LSCDF76.8-T3](#) [FO3LSCEF76.8-BULK](#) [FO3LSCEF76.8-T1](#) [FO3LSCEF76.8-T3](#) [FO3LSJBM125.0-T3](#)  
[FO3LSJBM200.0-BULK](#) [FO3LSJBM200.0-T1](#) [FO3LSJBM200.0-T3](#) [FO3LSCBM250.0-T1](#) [FO3LSCBM250.0-T3](#)  
[FO3LSJBM125.0-T1](#) [FO3LSCDM27.0-T1](#) [FO3LSCDM26.0-T1](#)