



**THE DATASHEET OF  
FO3LSCBM148.5-T1**



### 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 ( $T_{STG}$ )	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$	
Supply Voltage ( $V_{DD}$ )	2.5V $\pm 10\%$	3.3V $\pm 10\%$
Input Current ( $I_{DD}$ )	50mA	
Standby Current	15 $\mu\text{A}$	
Output Symmetry (50% $V_{P-P}$ )	45 % ~ 55 %	
Rise Time (20%~80% $V_{P-P}$ )	500pS	
Fall Time (80%~20% $V_{P-P}$ )	500pS	
Differential Output Voltage ( $V_{OD}$ )	0.247V ~ 0.454V	
Differential Offset Voltage ( $V_{OS}$ )	1.125V ~ 1.375V	
Output Load (HCMOS)	100 Ohms Typical	
Start-up Time ( $T_S$ )	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	

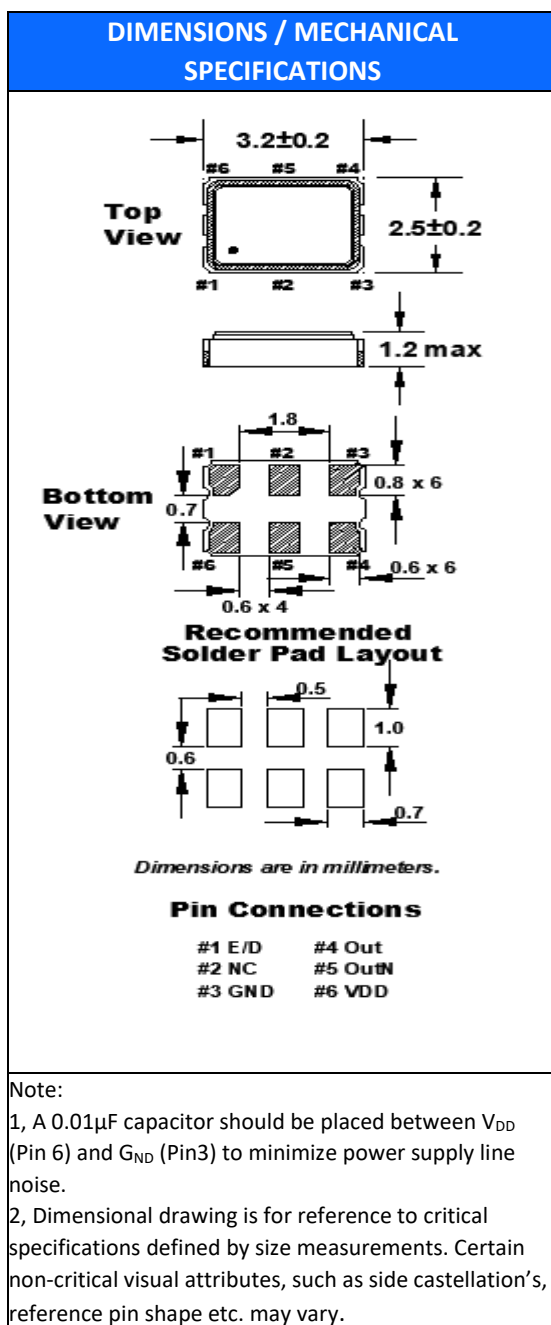
ENABLE / DISABLE FUNCTION	
Pin <sup>1</sup>	Out 1 (pin 4), Out 2 (pin 5)
OPEN <sup>1</sup>	Active
'1' Level $V_{IH} \geq 70\%V_{DD}$	Active
'0' Level $V_{IL} \leq 30\%V_{DD}$	High Z

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.



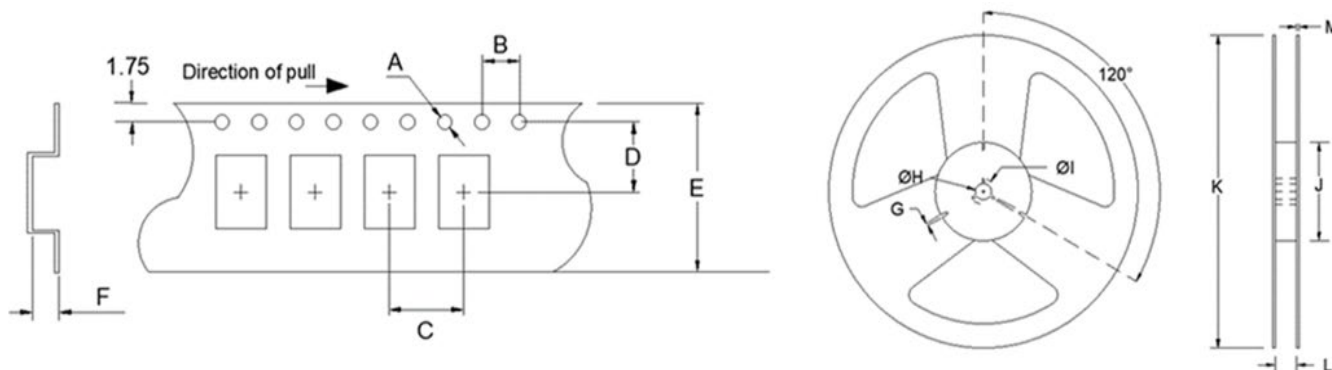
STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
ROHS/REACH Compliant	Yes

# FO3LS

3.2mm x 2.5mm  
SMD LVDS Oscillator



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 -T3 = 3,000	2.0	ø13	ø21	ø60	ø180	9.0	1.2



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

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