

ECN/PCN No.: 4887

For Manufacturer		
Product Description: CMOS SMD Oscillator	Abracon Part Number / Part Series: FO6HS	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> Series <input checked="" type="checkbox"/> ECN <input type="checkbox"/> Part Number <input type="checkbox"/> EOL
Affected Revision: A	New Revision: B	Application: <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety

Prior to Change:

Voltage option in Part Numbering Table

Available Options & Part Identification*						
Sample PN: FO6HSCBE25.0-T2						
F	O6HS	C	B	E	25.0	-T2
Fox	Model Number	Voltage	Stability	Operating Temperature	Frequency (MHz)	Values Added Options
		B = 3.3V±5%	A = 100 PPM B = 50 PPM D = 25 PPM E = 20 PPM	E = -10 to +70°C M = -40 to +85°C		Blank = Bulk T1 = 1,000 pcs T2 = 2,000 pcs

Rise/Fall Time

Rise/Fall Time (10%/90% V _{DD} Levels) (T _R /T _F)	6 nS
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After Change:

Voltage option in Part Numbering Table

Available Options & Part Identification*						
Sample PN: FO6HSCBE25.0-T2						
F	O6HS	C	B	E	25.0	-T2
Fox	Model Number	Voltage	Stability	Operating Temperature	Frequency (MHz)	Values Added Options
		C = 3.3V±10%	A = 100 PPM B = 50 PPM D = 25 PPM E = 20 PPM	E = -10 to +70°C M = -40 to +85°C		Blank = Bulk T1 = 1,000 pcs T2 = 2,000 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_{DD}.

Rise/Fall Time

Rise/Fall Time (10%/90% V _{DD} Levels) (T _R /T _F)	7 nS
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Cause/Reason for Change:

Update in electrical specifications based on production capabilities.

Change Plan

Effective Date: 7/3/2025	Additional Remarks:	
Change Declaration:		
Issued Date: 7/3/2025	Issued By: Stephanie Lopez	Issued Department: Engineering
Approval: Thomas Culhane Engineering Director	Approval: Reuben Quintanilla Quality Director	Approval: Ying Huang Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable): N/A	Alternate Part Number / Part Series: N/A
Additional Approval:	Additional Approval:

Customer Approval (If Applicable)**Qualification Status:** Approved Not accepted*Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.***Customer Part Number:****Customer Project:****Company Name:****Company Representative:****Representative Signature:****Customer Remarks:**

Features

- CMOS Output
- Stabilities to ± 20 PPM
- Temperature Ranges as wide as -40°C to $+85^{\circ}\text{C}$
- Supply Voltages: 3.3V

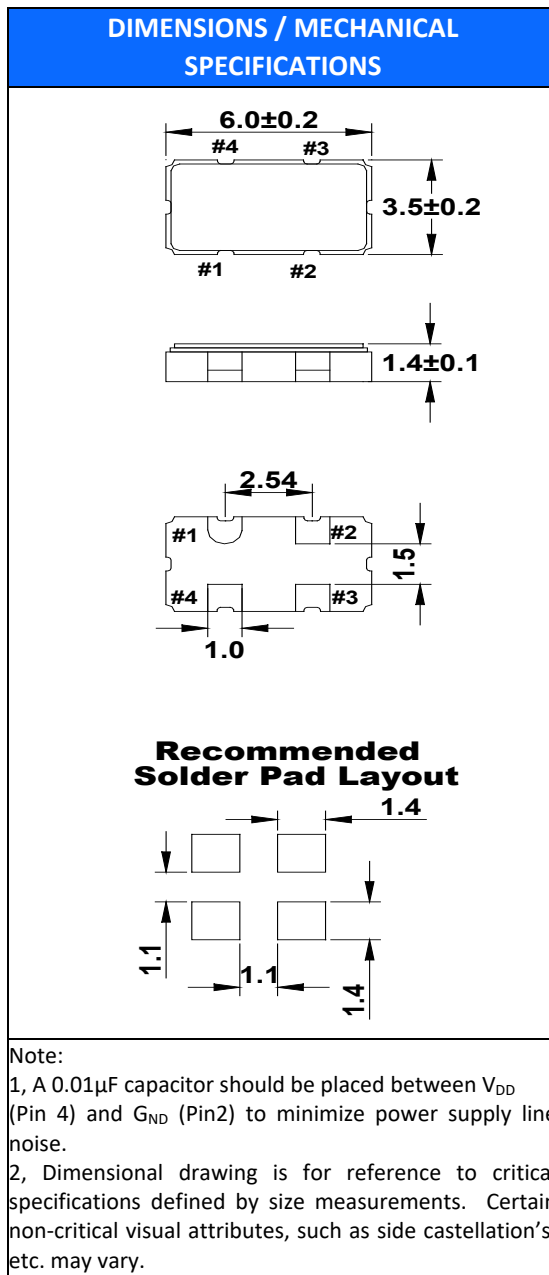
3.3V ELECTRICAL CHARACTERISTICS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range (F_0)	1.544 ~ 50.000 MHz
Temperature Range	
Storage (T_{STG})	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Supply Voltage (V_{DD})	3.3V (See options)
Input Current (I_{DD})	20 mA
Standby Current	10 μA
Output Symmetry (50% V_{DD})	40 % ~ 60 %
Rise/Fall Time (10%/90% V_{DD} Levels) (T_R/T_F)	7 nS
Output Voltage (V_{OL})	10 % V_{DD}
(V_{OH})	90 % V_{DD} Min
Output Load (CMOS)	15 pF
Start-up Time (T_S)	10 mS
Output Disable Time ¹	150 nS
Output Enable Time ¹	10 mS

ENABLE / DISABLE FUNCTION	
Pin1	Output (pin 3)
OPEN ¹	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 ²		
Frequency Stability ²	Operating Temperature ($^{\circ}\text{C}$)	Frequency Range (MHz)
$\pm 100\text{PPM}$	$-10 \sim +70$	1.544 ~ 50.000
$\pm 100\text{PPM}$	$-40 \sim +85$	1.544 ~ 50.000
$\pm 50\text{PPM}$	$-10 \sim +70$	1.544 ~ 50.000
$\pm 50\text{PPM}$	$-40 \sim +85$	1.544 ~ 50.000
$\pm 25\text{PPM}$	$-10 \sim +70$	1.544 ~ 50.000
$\pm 25\text{PPM}$	$-40 \sim +85$	1.544 ~ 50.000
$\pm 20\text{PPM}^*$	$-10 \sim +70$	1.544 ~ 50.000

¹ An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

² Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, shock, vibration, reflow, and One-year aging.



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 ($0.3 \sim 1\mu\text{m}$) over Ni ($1.27 \sim 8.89\mu\text{m}$)
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS / REACH Compliant	Yes

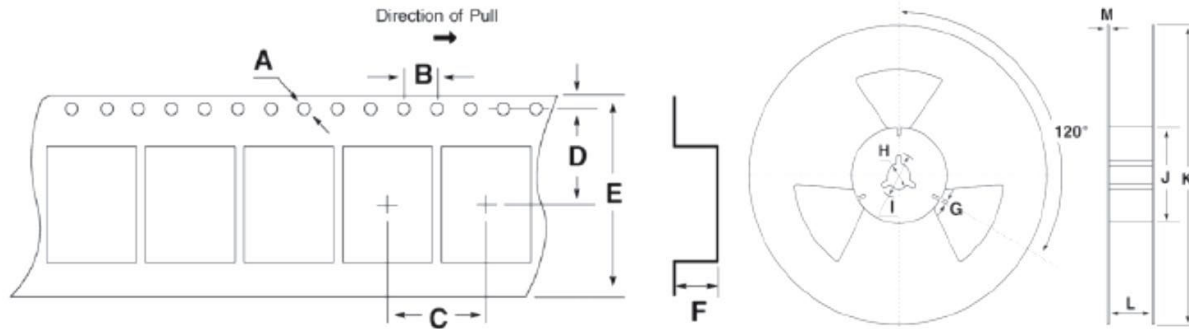
FO6HS

(Former F4200)

6mm x 3.5mm
CMOS SMD 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	8.0	5.5	12	1.9	-T2 = 2,000 -T1 = 1,000	2.0	ø13	ø21	ø80	ø255	13.5	2.0



Available Options & Part Identification*

Sample PN: **FO6HSCBE25.0-T2**

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Fox	Model Number	Voltage C = 3.3V±10%	Stability A = 100 PPM B = 50 PPM D = 25 PPM E = 20 PPM	Operating Temperature E = -10 to +70°C M = -40 to +85°C	Frequency (MHz)	Values Added Options Blank = Bulk T1 = 1,000 pcs T2 = 2,000 pcs

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Reliability Test Conditions

Please contact Abracon Quality Assurance department

Brand	Part Numbers	Series	ECO#
Fox	FO6HSCBM25.0-T1	FO6HS	4887
Fox	FO6HSCBM3.6864-T1	FO6HS	4887

Datasheet Link

<https://abracon.com/datasheets/Fox/FO6HS.pdf>

<https://abracon.com/datasheets/Fox/FO6HS.pdf>

ECN Notification Link	Discontinued?
https://abracon.com/downloads/ECN-PCN/Fox/7020-ECN-PCN-4887-FO6HS.pdf	No
https://abracon.com/downloads/ECN-PCN/Fox/7020-ECN-PCN-4887-FO6HS.pdf	No