

3.3V HCMOS Automotive Grade SMD Oscillator



Model: FA4100 SERIES

RoHS Compliant / Pb Free / REACH Compliant

Rev. 2/27/2012

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Need a
Sample®

FEATURES

- AEC-Q200 Qualified
- TS-16949 Certified
- Temperature range from -40°C ~ +125°C
- Seam Seal
- Tape and Reel (2,000 pcs. STD)

• PART NUMBER SELECTION

Part Number	Model Number	Frequency Stability ¹	Operating Temperature (°C)	Frequency Range (MHz)
117B-Frequency-xxxxx	FA4100R	±100PPM	-40 ~ +85	2.000 ~ 135.000
116B-Frequency-xxxxx	FA4100	±100PPM	-40 ~ +125	2.000 ~ 48.000
125B-Frequency-xxxxx	FA4105R	±50PPM	-40 ~ +85	2.000 ~ 135.000
124B-Frequency-xxxxx	FA4105	±50PPM	-40 ~ +125	2.000 ~ 48.000
126B-Frequency-xxxxx	FA4106R	±25PPM	-40 ~ +85	2.000 ~ 135.000

• ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	see chart above
Storage Temperature Range (TSTG)	-55°C ~ +150°C
Supply Voltage (VDD)	3.3V ±10%
Input Current (IDD)	
2.000 ~ 19.999999 MHz	7mA
20.000 ~ 31.999999 MHz	12mA
32.000 ~ 49.999999 MHz	20mA
50.000 ~ 79.999999 MHz	25mA
80.000 ~ 99.999999 MHz	30mA
100.000 ~ 135.000 MHz	40mA
Output Symmetry (50% VDD)	40% ~ 60% ³
Rise/Fall Time (10% ~ 90% VDD LEVELS)	
2.000 ~ 49.999999 MHz	10nS
50.000 ~ 79.999999 MHz	8nS
80.000 ~ 99.999999 MHz	5nS
100.000 ~ 135.000 MHz	4nS
Output Voltage (VOL)	10% VDD
(VOH)	90% VDD Min
Output Current (IOL)	2mA Min
(IOH)	-2mA Min
Output Load (HCMOS)	15pF
Standby Current (IST)	10μA
Start-up Time (Ts)	10mS
Output Disable Time ²	100nS
Output Enable Time ²	10mS
Aging (per year @25°C)	±5 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au

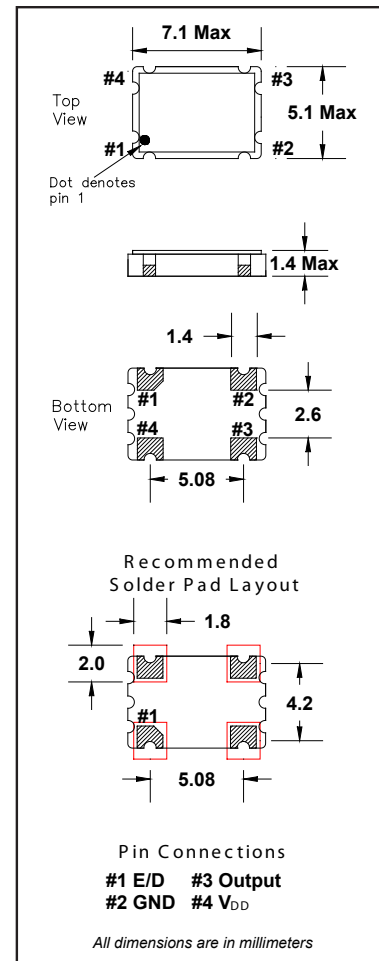
¹ Inclusive of 25°C tolerance, operating temperature range.

² An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

³ 45/55 symmetry available on an inquiry basis.

Notes: A 0.01μF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise.

Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary. All specifications subject to change without notice.



• ENABLE / DISABLE FUNCTION

(Pin 1)	OUTPUT (Pin 3)
OPEN ²	ACTIVE
'1' Level VIH ≥ 80% VDD	ACTIVE
'0' Level VIL ≤ 20% VDD	High Z

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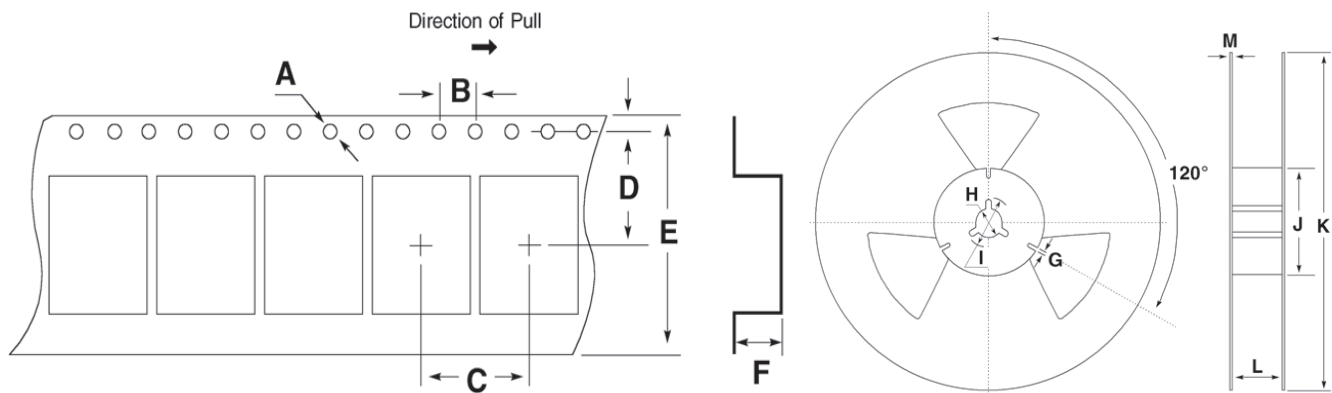
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• TAPE SPECIFICATIONS (millimeters)							
MODEL	A	B	C	D	E	F	STD Reel QTY
FA4100 Series	Ø1.5	4.0	8.0	7.5	16.0	2.15	2,000

• REEL SPECIFICATIONS (millimeters)							
MODEL	G	H	I	J	K	L	M
FA4100 Series	2.0	Ø13	Ø21	Ø80	Ø255	17.5	2.0



PRODUCT USE

Performance specifications and the operating parameters of the described products are determined in the independent state and are not guaranteed to perform the same way when installed in customer products. FOX products are not intended for use in life support systems or similar devices where the failure or malfunction of a FOX product can be reasonably expected to significantly affect the health or safety of users. Anyone using a FOX product in such a manner does so at their own risk, absent an express, written agreement by FOX.