

# 2.5V HCMOS Automotive Grade SMD Oscillator



Model: FA540 SERIES

RoHS Compliant / Pb Free / REACH Compliant

Rev. 5/16/2016

Page 1 of 2

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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 (1,000 pcs. STD)

## • PART NUMBER SELECTION

Part Number	Model Number	Frequency Stability <sup>1</sup>	Operating Temperature (°C)	Frequency Range (MHz)
559B-Frequency-xxxxx	FA540R	±100PPM	-40 ~ +85	2.000 ~ 75.000
558B-Frequency-xxxxx	FA540	±100PPM	-40 ~ +125	2.000 ~ 48.000
561B-Frequency-xxxxx	FA545R	±50PPM	-40 ~ +85	2.000 ~ 75.000
560A-Frequency-xxxxx	FA545	±50PPM	-40 ~ +125	2.000 ~ 48.000
563B-Frequency-xxxxx	FA546R	±25PPM	-40 ~ +85	2.000 ~ 75.000

## • ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	see chart above
Storage Temperature Range (TSTG)	-55°C ~ +150°C
Supply Voltage (VDD)	2.5V ±5%
Input Current (IDD)	
2.000 ~ 9.999999 MHz	6mA
10.000 ~ 31.999999 MHz	8mA
32.000 ~ 75.000 MHz	20mA
Output Symmetry (50% VDD)	40% ~ 60% <sup>3</sup>
Rise/Fall Time (10% ~ 90% VDD LEVELS)	
2.000 ~ 48.000 MHz	6.5nS
48.000+ ~ 49.999999 MHz	5nS
50.000 ~ 75.000 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) Ta = -40 ~ +85°C	10µA
Ta = -40 ~ +125°C	20µA
Start-up Time (Ts)	10mS
Output Disable Time <sup>2</sup>	100nS
Output Enable Time <sup>2</sup>	10mS
Aging (per year @25C)	±5 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au

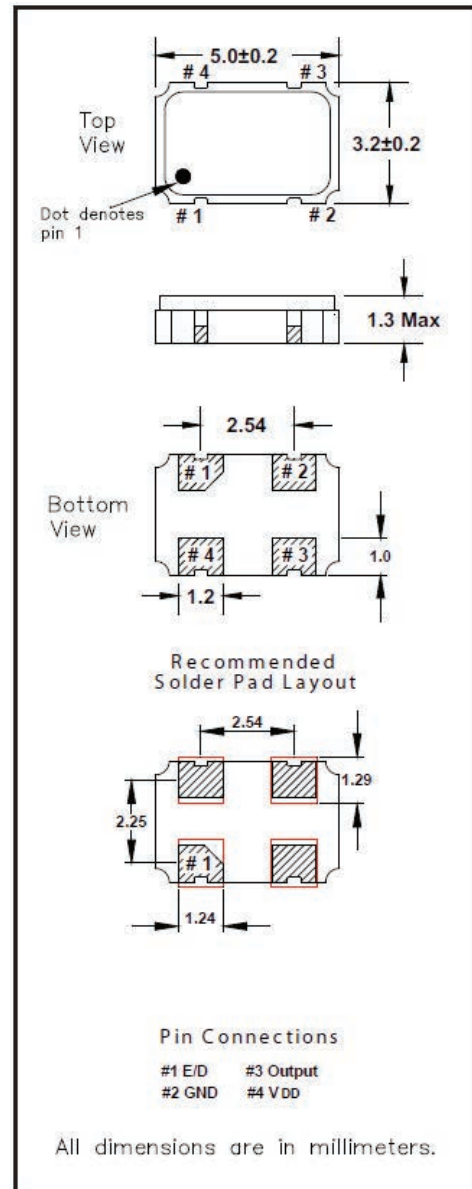
<sup>1</sup> Inclusive of 25°C tolerance, operating temperature range.

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

<sup>3</sup> 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 <sup>2</sup>	ACTIVE
'1' Level VIH ≥ 80% VDD	ACTIVE
'0' Level VIL ≤ 20% VDD	High Z

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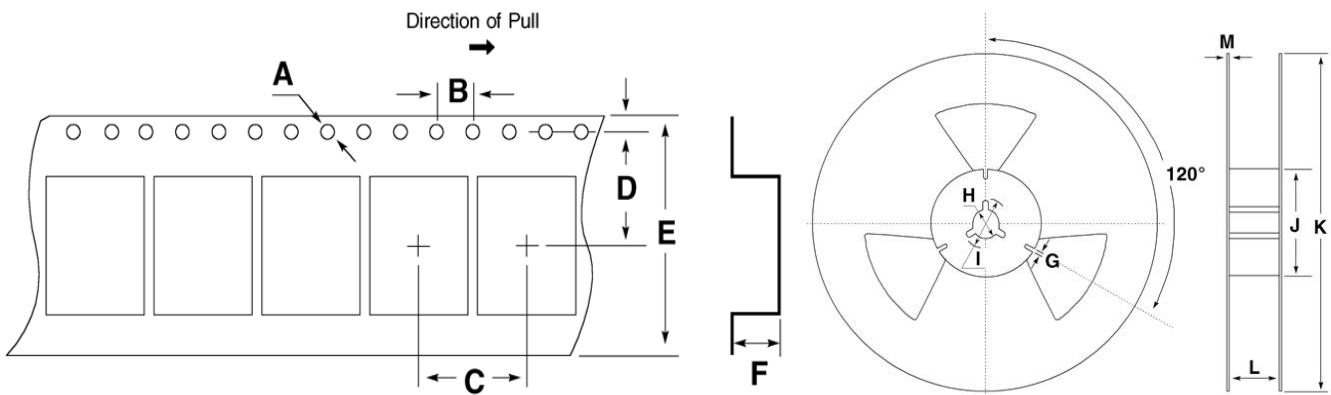
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## • TAPE SPECIFICATIONS (millimeters)

MODEL	A	B	C	D	E	F	STD Reel QTY
FA540 Series	∅1.5	4.0	8.0	5.5	12.0	1.5	1,000

## • REEL SPECIFICATIONS (millimeters)

MODEL	G	H	I	J	K	L	M
FA540 Series	2.0	∅13	∅21	∅62	∅180	13.5	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.