

## FR4 PCB BASED SMD HCMOS VCXO (14.3 x 8.7 x 5.5mm)

### FEATURES:

- ULTRA LOW NOISE AND JITTER PERFORMANCE
- HCMOS OUTPUT WITH LOW CURRENT
- SUITABLE FOR REFLOW

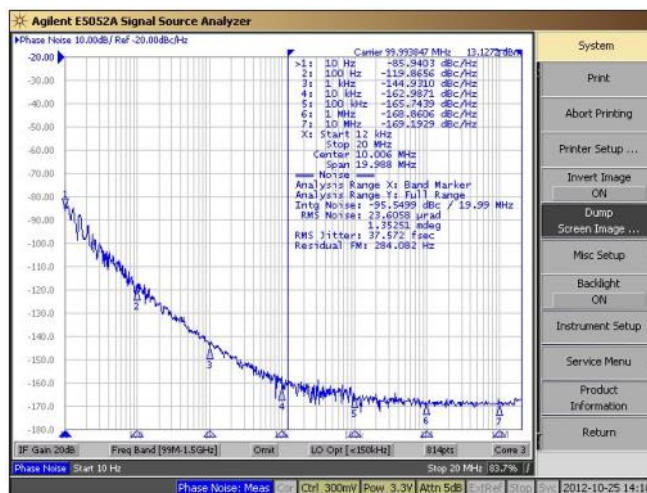


### ■ SPECIFICATION

PARAMETER		MIN.	TYP.	MAX.	UNIT	NOTE
FREQUENCY RANGE		1		800.000	MHz	
OPERATING TEMPERATURE RANGE		-40		85	°C	See P/N guide for other options
STORAGE TEMPERATURE RANGE		-55		105	°C	
SUPPLY VOLTAGE ±5%		3.3		5.0	V	See P/N guide for other options
SUPPLY CURRENT			15	100	mA	
OUTPUT	LOGIC FAMILY	HCMOS				
	LOAD	15pF				
	LEVEL LOGIC '1' (V <sub>OH</sub> )	0.9 x V <sub>DD</sub>			V	
	LEVEL LOGIC '0' (V <sub>OL</sub> )			0.1 x V <sub>DD</sub>	V	
	SYMMETRY (DUTY CYCLE)	45		55	%	See P/N guide for other options
	RISE AND FALL TIME (Tr/Tf)			3	nS	@ 10% ~ 90% V <sub>DD</sub>
START-UP TIME				10	mS	
FREQUENCY DEVIATION		±20			ppm	@ APR (Inclusive of tolerance@25°C, stability over temp, voltage chance, load change and aging)
CONTROL VOLTAGE	3.3V	0		3.3	V	
	5.0V	0		5	V	
LINEARITY				10	%	
MODULATION BANDWIDTH		10			kHz	@ -3dB
INPUT IMPEDANCE			50		kΩ	
AGING @ 25°C + 3°C				±3.0	ppm	@ 1 <sup>ST</sup> year
PHASE JITTER			0.12		pS	@ 12kHz ~ 80MHz offset
PHASE NOISE FLOOR			-165		dBc/Hz	@ 100MHz
PHASE NOISE	@ 1kHz		-145		dBc/Hz	@ 100MHz with ±20ppm APR
	@ 10kHz		-163		dBc/Hz	
	@ 100kHz		-165		dBc/Hz	
	@ 1MHz		-168		dBc/Hz	

Note: -40°C ~ 85°C temperature range is available with 35mA current max and -164dBc/Hz @ 100kHz phase noise. (Contact factory for detailed phase noise plot)

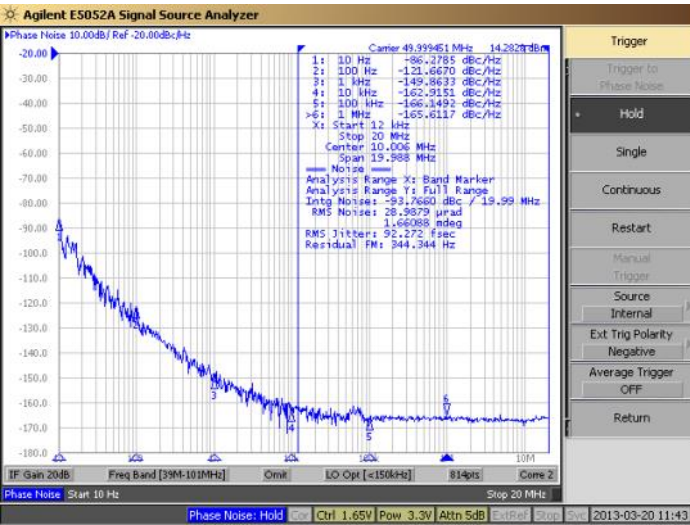
### ■ PHASE NOISE (TYPICAL) @ 100MHz (0°C to 70°C)



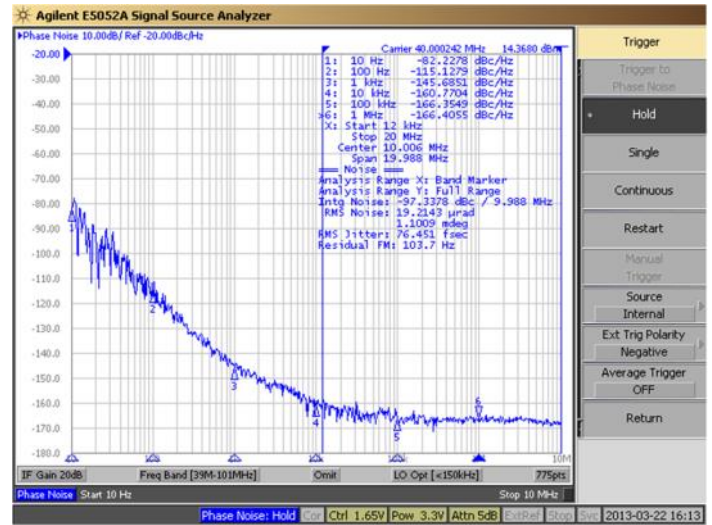
Consult factory for typical phase noise value for other operating temperature range.

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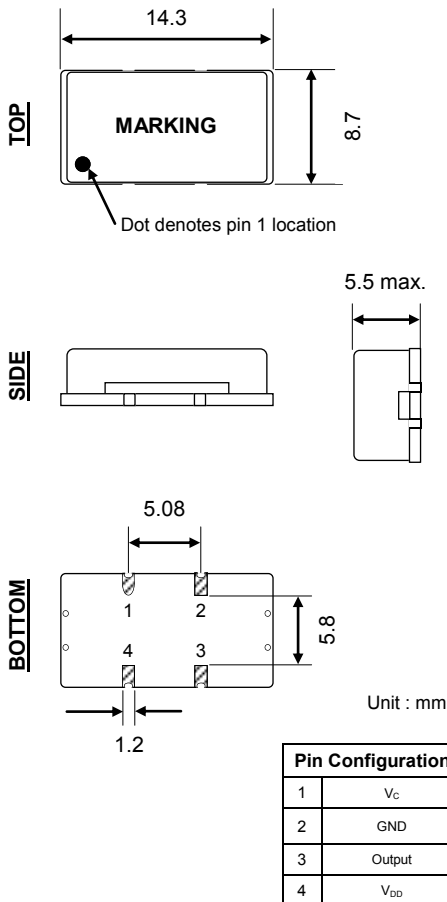
## ■ PHASE NOISE (TYPICAL) @ 50MHz (0°C to 70°C)



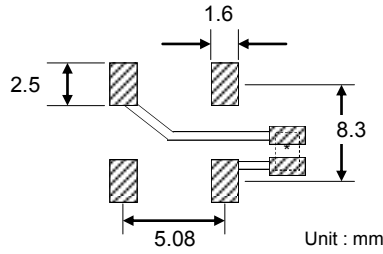
## ■ PHASE NOISE (TYPICAL) @ 40MHz (0°C to 70°C)



## ■ PACKAGE DIMENSIONS

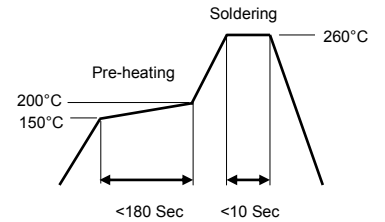


## ■ SOLDER PATTERN



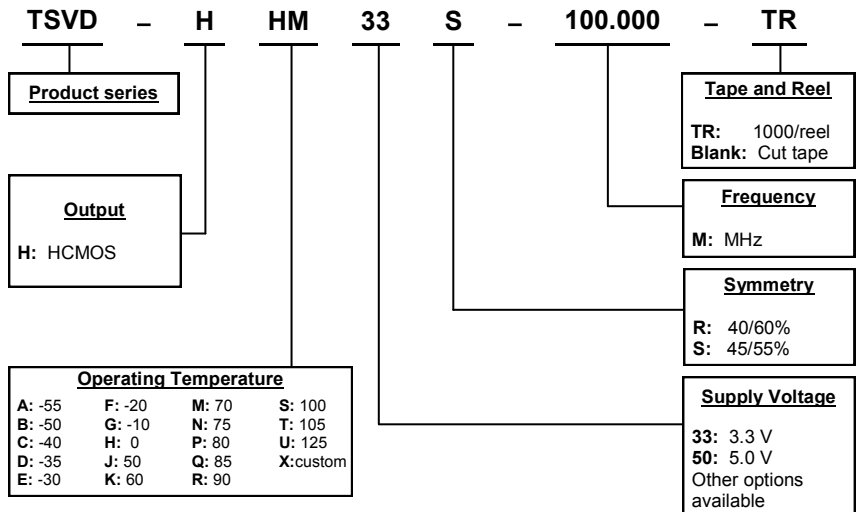
\*0.01μF to 0.1μF bypass capacitor recommended

## ■ REFLOW PROFILE



Note: Consult factory for detail

## ■ PART NUMBERING GUIDE



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