



GENERAL OSCILLATOR SPECIFICATION : VC40

Parameter			Units
Frequency Range ^{*1}		60.000 000 to 800.000 000	MHz
Frequency Stability	All Causes ^{*2}	See table 1, on page 2	
	Aging	See table 1, on page 2	
	Calibration (at + 25 °C)		
	Initial	Adjustable to nominal frequency	
	24 hours after reflow (Maximum)	± 1	ppm
Frequency Adjustment ^{*3}	Frequency Range	See table 1, on page 2	
	Absolute Pulling Range	See table 1, on page 2	
	Voltage Control Range	+ 0.0 to + 3.3	V
	Centre Voltage	+ 1.65	V
	Slope	Positive ^{*5}	
	Linearity (Maximum)	10	%
	Input Impedance (Minimum)	100	kΩ
Temperature Range	Operating	- 40 to + 85	°C
	Storage	- 45 to + 90	°C
Supply Voltage (± 5 %)		3.3	V
Supply Current		See table 2, on page 2	
Waveform		Squarewave	
Output		See table 2, on page 2	
Load		See table 2, on page 2	
Mark Space Ratio		See table 2, on page 2	
Rise / Fall Times		See table 2, on page 2	
Start up Time (Maximum)		10	ms
Tri State		See table 2, on page 2	

Package Style : 14.30 x 8.70 x 5.50 mm.

Marking

Line 1 : **PDI**
Line 2 : Frequency
Line 3 : Spec. code



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Option	Frequency Stability ppm	Frequency Control Range ppm	Absolute Pulling Range ppm	Aging inclusive
1	± 50	± 100	± 50	First year
2		± 150	± 100	
3	± 60	± 110	± 50	20 years
4		± 160	± 100	

Table 1 - Option numbers for temperature operating characteristics.

Type	Number of pads	Frequency Range MHz	Supply Current mA Max.	Output ^{*1}	Load Max.	Mark Space Ratio %	Rise Fall Times ns Max.	Tri-State Pin	Tri-State Pin High ≥ 70 % V _{CC}	Tri-State Pin Low ≤ 30 % V _{CC}
1	4	60.000 000 to 125.000 000	50	TTL	2 TTL	60 : 40 ^{*c}	5	-	-	-
2				CMOS	15 pF					
3	6	60.000 000 to 125.000 000	50	TTL	2 TTL	60 : 40 ^{*c}	5	-	-	-
4				CMOS	15 pF					
5	6	60.000 000 to 80.000 000	30	TTL	2 TTL	60 : 40 ^{*c}	5	2	Enable ^{*e}	Disable
6				CMOS	15 pF					
7	6	60.000 000 to 800.000 000	65	PECL	50 Ω ^{*a}	55 : 45 ^{*d}	1	-	-	-
8	6	60.000 000 to 230.000 000	40	LVDS	50 Ω ^{*b}	60 : 40 ^{*d}	1	-	-	-
9	6	60.000 000 to 700.000 000	75	PECL	50 Ω ^{*a}	55 : 45 ^{*d}	1	2	Disable	Enable ^{*e}

Table 2 - Type numbers for operating characteristics.

- ^{*a} = 50 Ω to V_{CC} - 2 V.
^{*b} = 50 Ω from each output.
^{*c} = at 50 % V_{CC}.
^{*d} = at 50 % Output.
^{*e} = or Open.

Notes

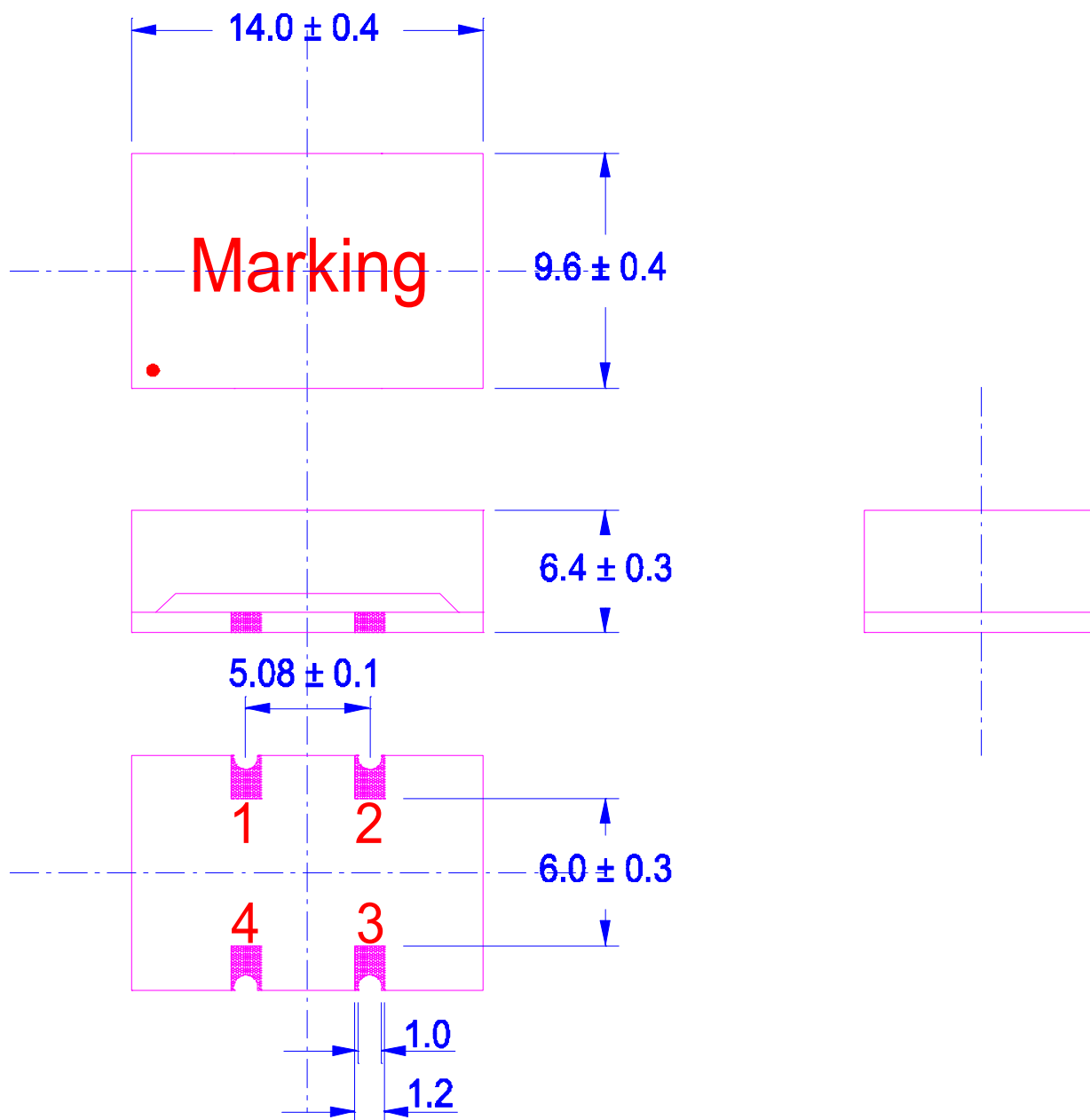
- ^{*1} Not all Frequency / Output combinations are available.
^{*2} Inclusive of calibration at + 25 °C, operating temperature range, input voltage variation, load variation, aging, shock, and vibration.
^{*3} Over voltage control range applied to Pin 1.
^{*4} Fundamental Oscillation up to 230 MHz.
 Multiplier oscillation 230 MHz and above.
^{*5} Increasing control voltage increases output frequency.
 Terminals to be Au.
 Other options are available, please contact factory.
 All product supplied in anti-static packaging.
 All product is supplied RoHS and REACH compliant.
 Product can be supplied on Tape and Reel, on reels of 500 units.
 Specifications subject to change without notice, last updated 23rd May 2011.



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Package Drawing (4 pad version)



Pin Connections

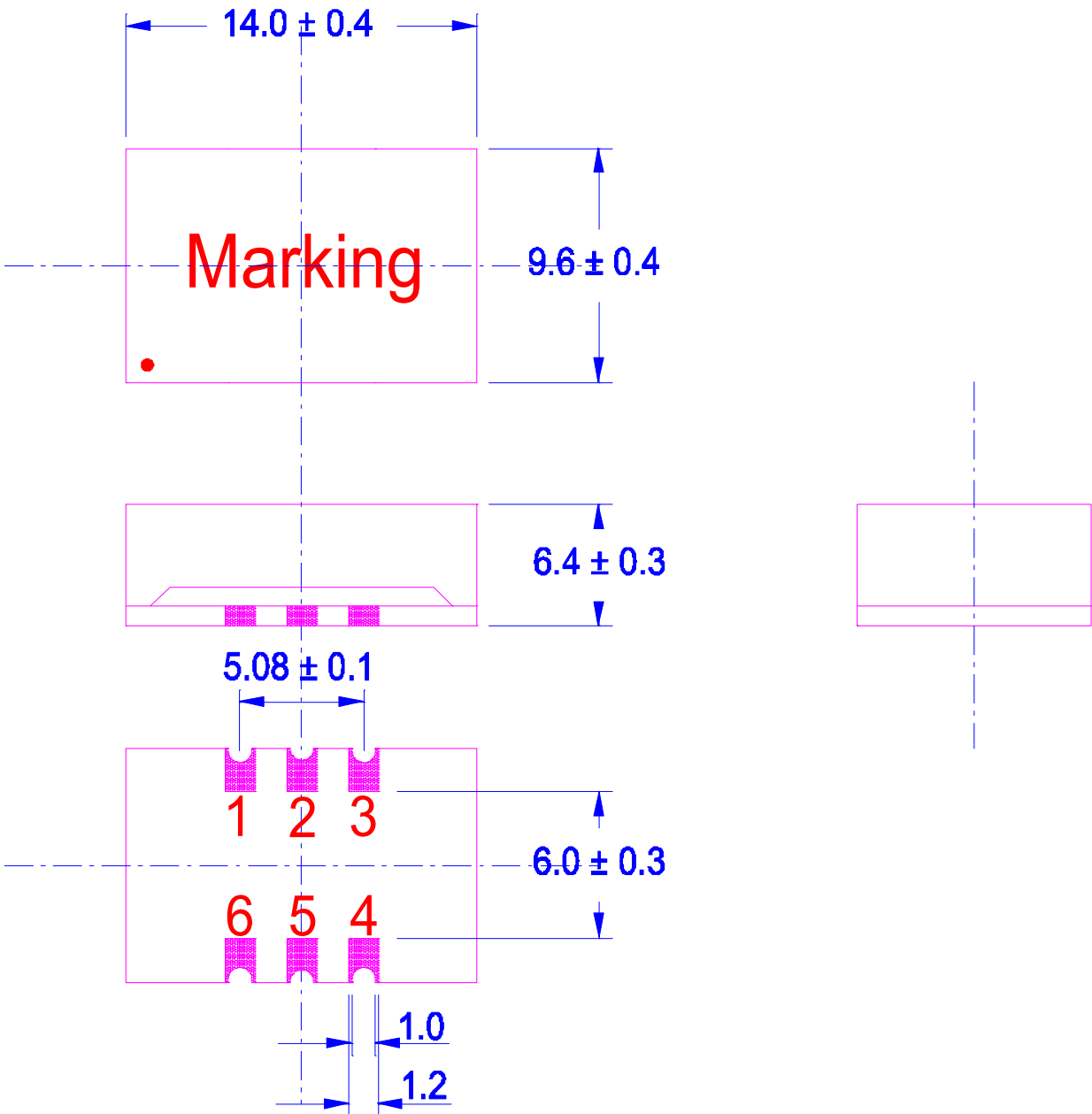
- 1 Voltage Control
- 2 Ground / Case
- 3 Output
- 4 Supply Voltage

All Dimensions and Tolerances are in mm



GENERAL OSCILLATOR SPECIFICATION : VC40

Package Drawing (6 pad version)



Pin Connections

All Dimensions and Tolerances are in mm

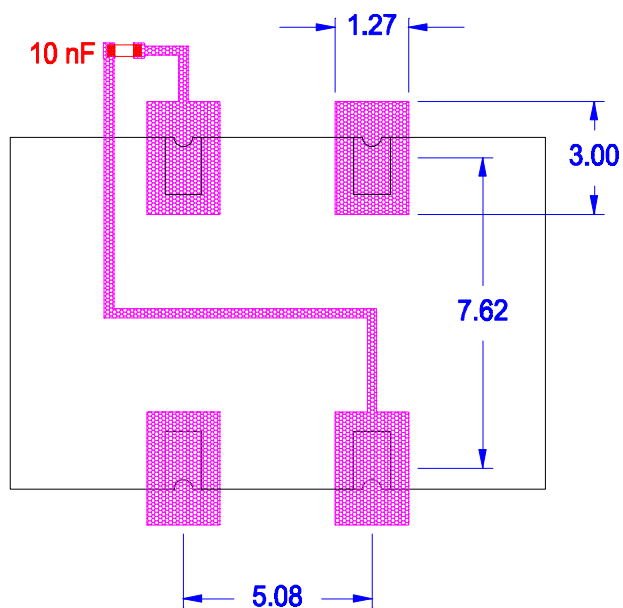
	Types 3 & 4	Types 5 & 6	Types 7 & 8	Type 9
1 Voltage Control				
2	Not Connected	Tri-State	Not Connected	Tri-State
3 Ground / Case				
4 Output				
5	Not Connected	Not Connected	Complementary Output	Complementary Output
6 Supply Voltage				



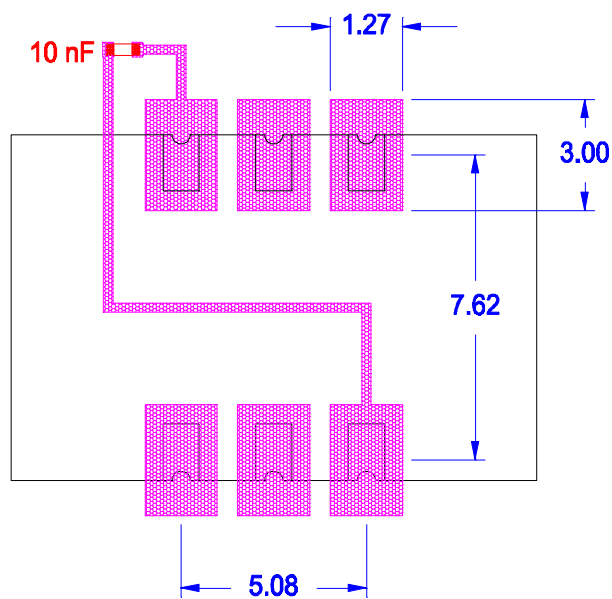
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Solder Pattern (4 pad version) (Reference purposes only)

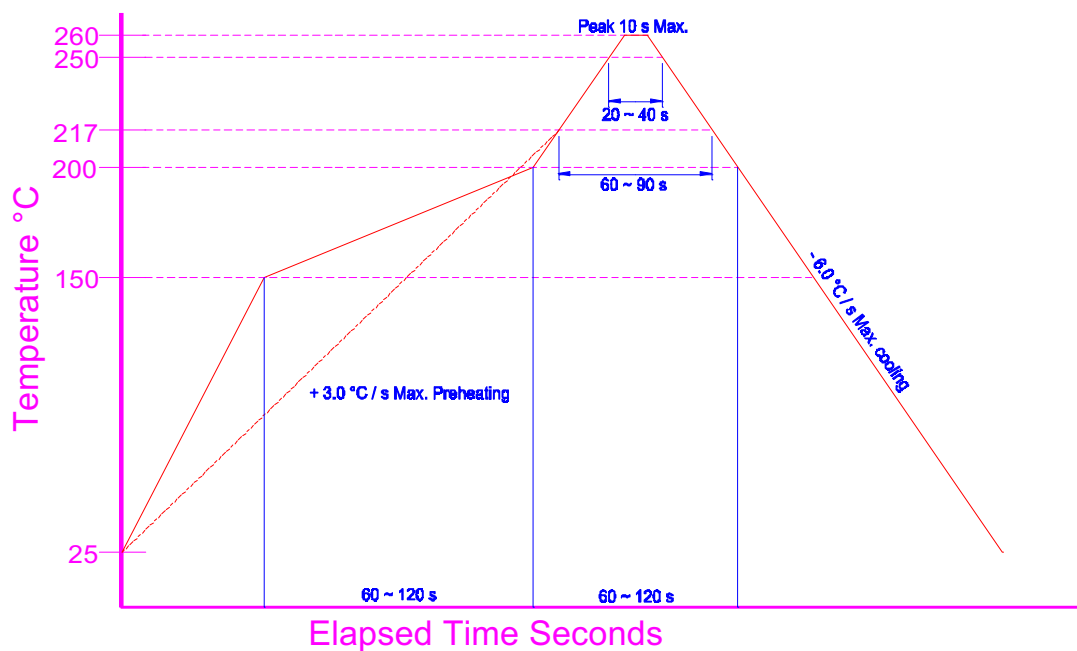


Solder Pattern (6 pad version) (Reference purposes only)



It is recommended that a 10 nF bypass capacitor should be placed between the Supply and Ground Pins to minimise power supply line noise.

Reflow Solder Profile

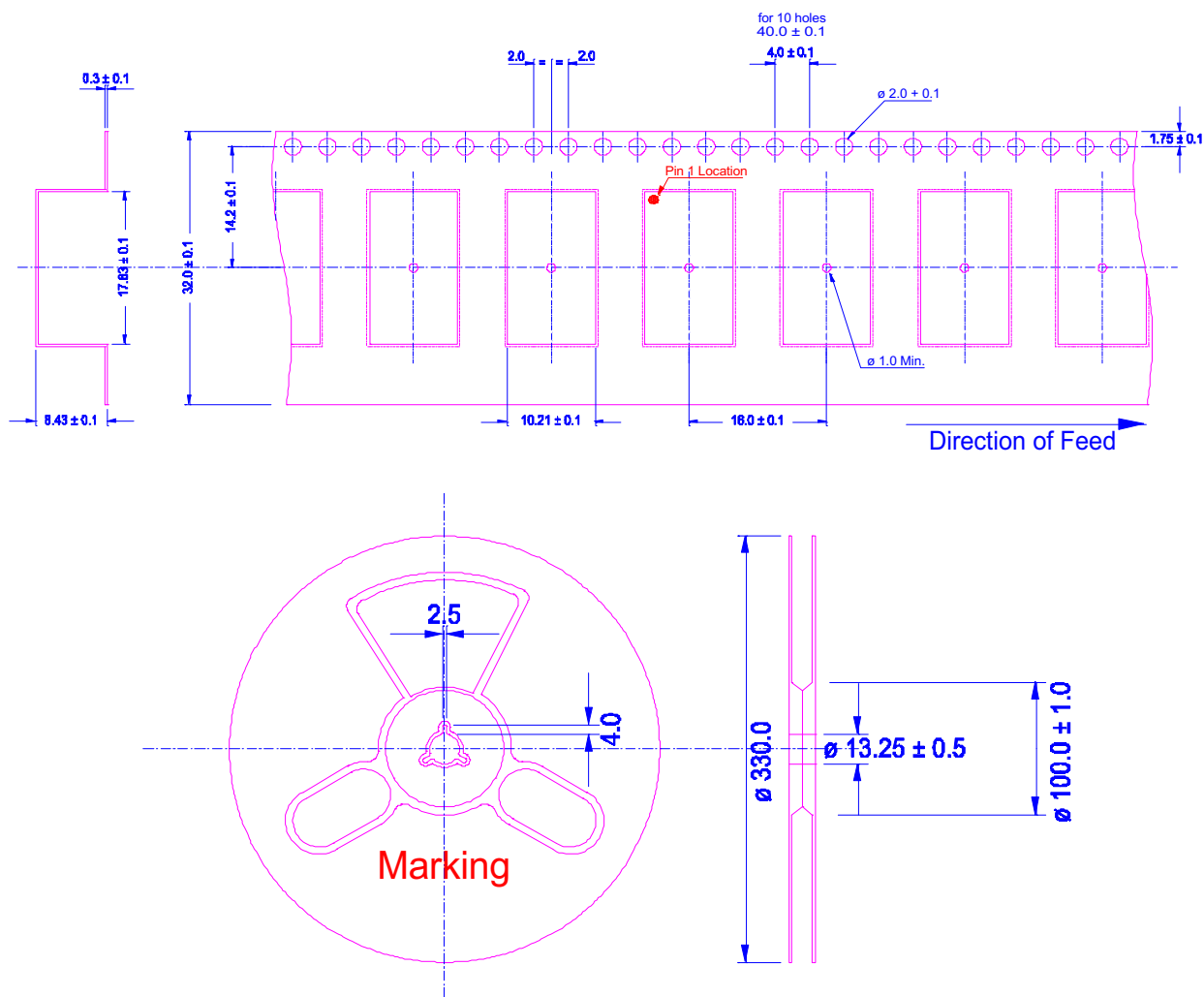




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Tape & Reel Dimensions



There may be small variations in pocket size and material thickness from reel to reel.

Empty Pockets

Trailing end (Minimum)	: 200 mm.
Leading end (Minimum)	: 400 mm.