



GENERAL OCXO SPECIFICATION : OCXO-100



Frequencies Available	: 10.000 000 to 100.000 000 MHz.	
Xtal Cut	: AT-Cut	SC-Cut (option)
Frequency Stability		
vs Temperature (Maximum) ^{*1}		
- 20.0 to + 70.0 °C	: ± 100.0 ppb.	± 20.0 ppb.
- 40.0 to + 85.0 °C	: ± 200.0 ppb.	± 30.0 ppb.
vs Supply Voltage (Maximum for a 5.0 % change)	: ± 10.0 ppb.	± 5.0 ppb.
vs Load (Maximum for a 5.0 % change)	: ± 10.0 ppb.	± 5.0 ppb.
vs Ageing		
Per day (after 72 hours operation) (Maximum)	: ± 2.0 ppb.	± 1.0 ppb.
Per year (after 72 hours operation) (Maximum)	: ± 500.0 ppb.	± 100.0 ppb.
Per year after first (Maximum)	: ± 250.0 ppb.	± 50.0 ppb.
Calibration (@ + 25.0 °C)		
Initial (at shipment) (Maximum)	: ± 300.0 ppb.	± 100.0 ppb.
3 Minutes after switch on (Maximum)	: ± 100.0 ppb.	± 10.0 ppb.
Frequency Adjustment (over voltage control range applied to Pin 3) ^{*2}		
Frequency Range (Electrical)	: ± 6.0 to ± 12.0 ppm.	± 0.75 to ± 2.0 ppm.
Voltage Control Range		
With supply voltage @ 3.3 V.	: + 0.0 to + 2.8 V.	
With supply voltage @ 5.0 V.	: + 0.0 to + 4.0 V.	
With supply voltage @ 12.0 V.	: + 0.0 to + 5.0 V.	
Reference Voltage Output (± 2.0 %)		
With supply voltage @ 3.3 V.	: + 2.8 V.	
With supply voltage @ 5.0 V.	: + 4.0 V.	
With supply voltage @ 12.0 V.	: + 5.0 V.	
Slope	: Positive, increasing control voltage increases output frequency.	
Linearity	: 20.0 % Maximum.	
Temperature Range		
Operating	: - 40 to + 85 °C (other options available).	
Storage	: - 55 to + 125 °C.	
Supply Voltage (± 5.0 %)	: + 5.0 V (3.30 V & 12.0 V options).	
Power Consumption (@ + 25.0 °C) (Maximum)		
During warm up (first 3 minutes after switch on)	: 3.0 W.	
Steady State	: 1.0 W.	

**PRECISION
DEVICES
(UK) LIMITED**

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ISO
ISO 9001
Reg. No. FM 01995



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AT-Cut

SC-Cut

Output Characteristics

Waveform : Squarewave.
 Output : HCMOS.
 Load : 15 pF.
 Mark Space Ratio (@ 1/2 V_{CC}) : 45:55.
 Logic Levels
 High (Minimum)
 With supply voltage @ 3.3 V. : 3.0 V.
 With supply voltage @ 5.0 V. : 4.5 V.
 With supply voltage @ 12.0 V. : 4.5 V.
 Low (Maximum)
 With supply voltage @ 3.3 V. : 0.3 V.
 With supply voltage @ 5.0 V. : 0.5 V.
 With supply voltage @ 12.0 V. : 0.5 V.

(Option)

Waveform : Sinewave.
 Load : 50 Ω.
 Output Power (@ 50 Ω Load)
 Minimum : + 3.0 dBm.
 Typical : + 5.5 dBm.
 Maximum : + 8.0 dBm.
 Harmonics (@ 50 Ω Load) (Maximum) : - 30.0 dBc.

Package Style : 25.40 x 25.40 x 16.50 mm.

Marking

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

Phase Noise (@ 10.0 MHz) (Maximum)

@ 1.0 Hz	:	- 75 dBc / Hz.		- 80 dBc / Hz.
@ 10.0 Hz	:	- 100 dBc / Hz.		- 120 dBc / Hz.
@ 100.0 Hz	:	- 130 dBc / Hz.		- 140 dBc / Hz.
@ 1.0 kHz	:	- 140 dBc / Hz.		- 145 dBc / Hz.
@ 10.0 kHz	:	- 150 dBc / Hz.		- 150 dBc / Hz.

Notes

*1 Other Temperature and Stability combinations available.
 *2 Fixed option available, no adjust.
 Terminals to be SnAgCu.
 All product supplied in anti-static packaging.
 All product is supplied RoHS compliant.

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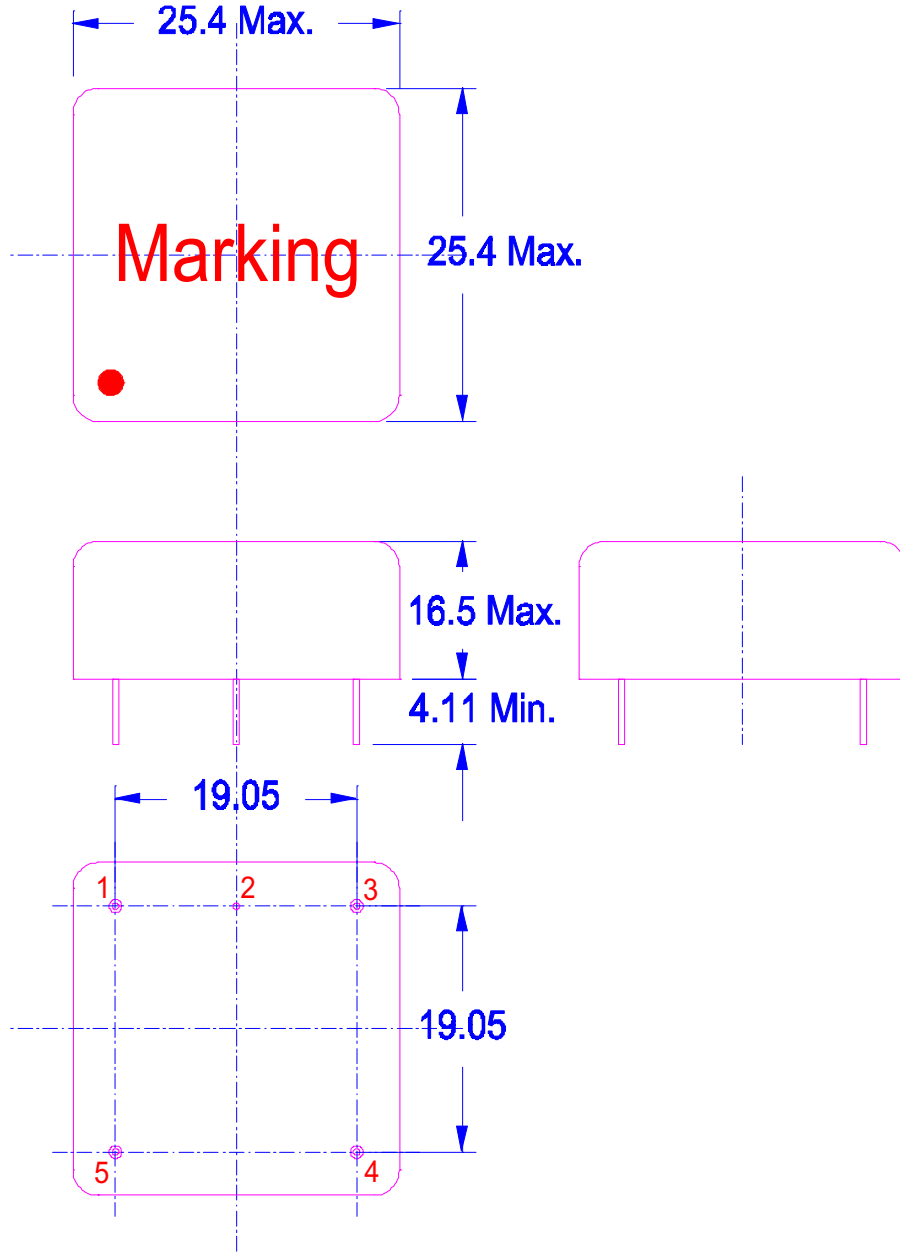
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Package Drawing



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Pin Connections

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

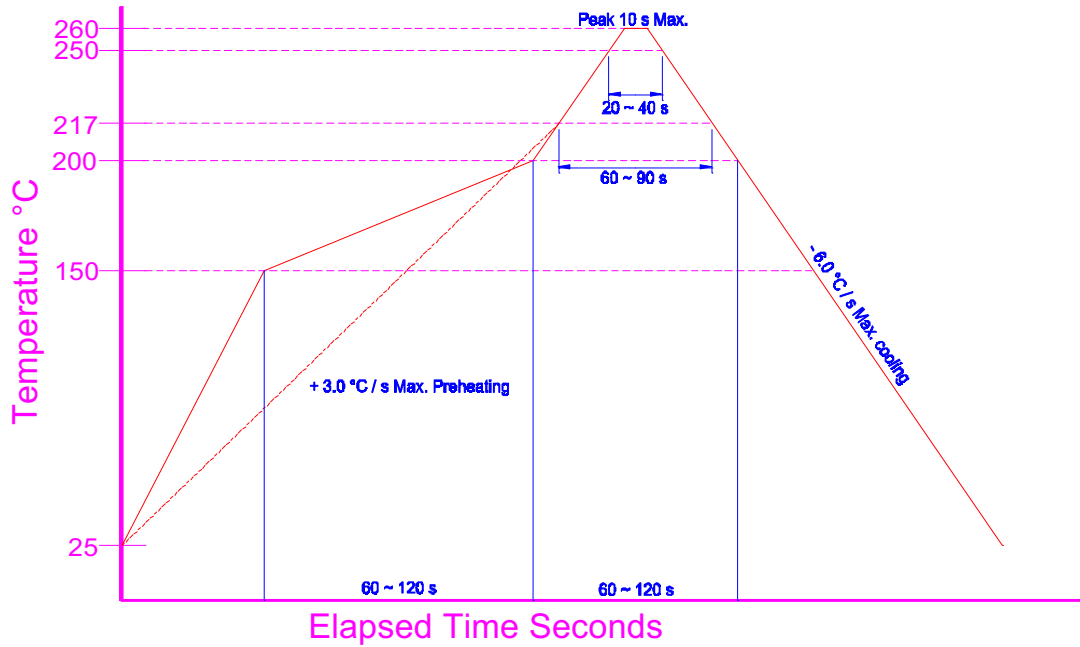
All Dimensions and Tolerances are in mm



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Reflow Solder Profile



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