



frequency control solutions

N623

ULTRA-LOW PHASE NOISE
LOW G-SENSITIVITY

VCXO

Product Description

Greenray Industries' N623 VCXO offers ultra-low phase noise and low g-sensitivity performance in a compact, SMD package.



Features

- 9.1 x 14.2 mm, SMD package
- 5.0 VDC Supply
- Frequency: 100 MHz (other frequencies & options available)
- Sine Wave output
- Random Vibration per MIL-STD-202, Method 204
- Shock per MIL-STD-202, Method 213
- RoHS compliant

Applications

- Telecommunications
- High-shock electronics
- Mobile radio
- Mobile instrumentation
- Airborne communications
- Wireless communications
- Microwave receivers

REV: G



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100 MHz

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Electrical Characteristics						
Parameter	Conditions	Min	Typical	Max	Units	Ordering Code
Nominal Frequency	@ +25°C set point		100		MHz	
Frequency Stability	-40°C to +85°C		± 15		ppm	
Absolute Pull Range	All condition 7 years	-10		10	ppm	
Aging	1 st year		± 1		ppm	
Frequency vs Voltage	± 0.25V		± 1		ppm	
Voltage Control (EFC)	0 to VDD, Positive Slope		± 30		ppm	
EFC Linearity	EFC = 0.5 to VDD-0.5			10	%	
Phase Noise Performance						
Parameter	Frequency Offset (Hz)	Min	Typical	Max	Units	Ordering Code
Static @ 100 MHz Nom. Freq.	10		-85	-80	dBc/Hz	
	100		-115	-110	dBc/Hz	
	1 k		-140	-135	dBc/Hz	
	10 k		-162	-158	dBc/Hz	
	100 k		-173	-170	dBc/Hz	
	1 M		-175	-173	dBc/Hz	
DC Supply						
Parameter	Conditions	Min	Typical	Max	Units	Ordering Code
Supply Voltage (VDD)		4.75	5.0	5.25	Vdc	
Supply Current	100 MHz Freq.		50	55	mA	
RF Output						
Parameter	Conditions	Min	Typical	Max	Units	Ordering Code
Sinewave						S
Output Power	50 Ω Load @ +25°C	+9.5	+12	+14.5	dBm	
Harmonics				-30	dBc	



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Environmental and Mechanical Specifications				
Test	Standard	Method	Condition	Description
Vibration	MIL-STD-202	204	A	10 g peak, 10 and 500 Hz
Shock	MIL-STD-202	213	C	100 g, 6 ms half-sine, 12.3 ft/sec

Recommendations and General Information	
Parameter	Notes
Operating Temperature	-40°C to +85°C
Storage Temperature	-45°C to +95°C
Terminal Finish	ENIG (RoHS) (SnPb 63/37 (non-RoHS) Available upon request)
Package Weight	3 gram
Soldering Instruction	Reflow
Shipping	Tape & Reel
Marking	GRI Logo, Model #, Frequency, Serial #, Date Code Addition marking upon request if space is available

Ordering Example

N623 - 100.0 MHz

Model	Freq. (MHz)

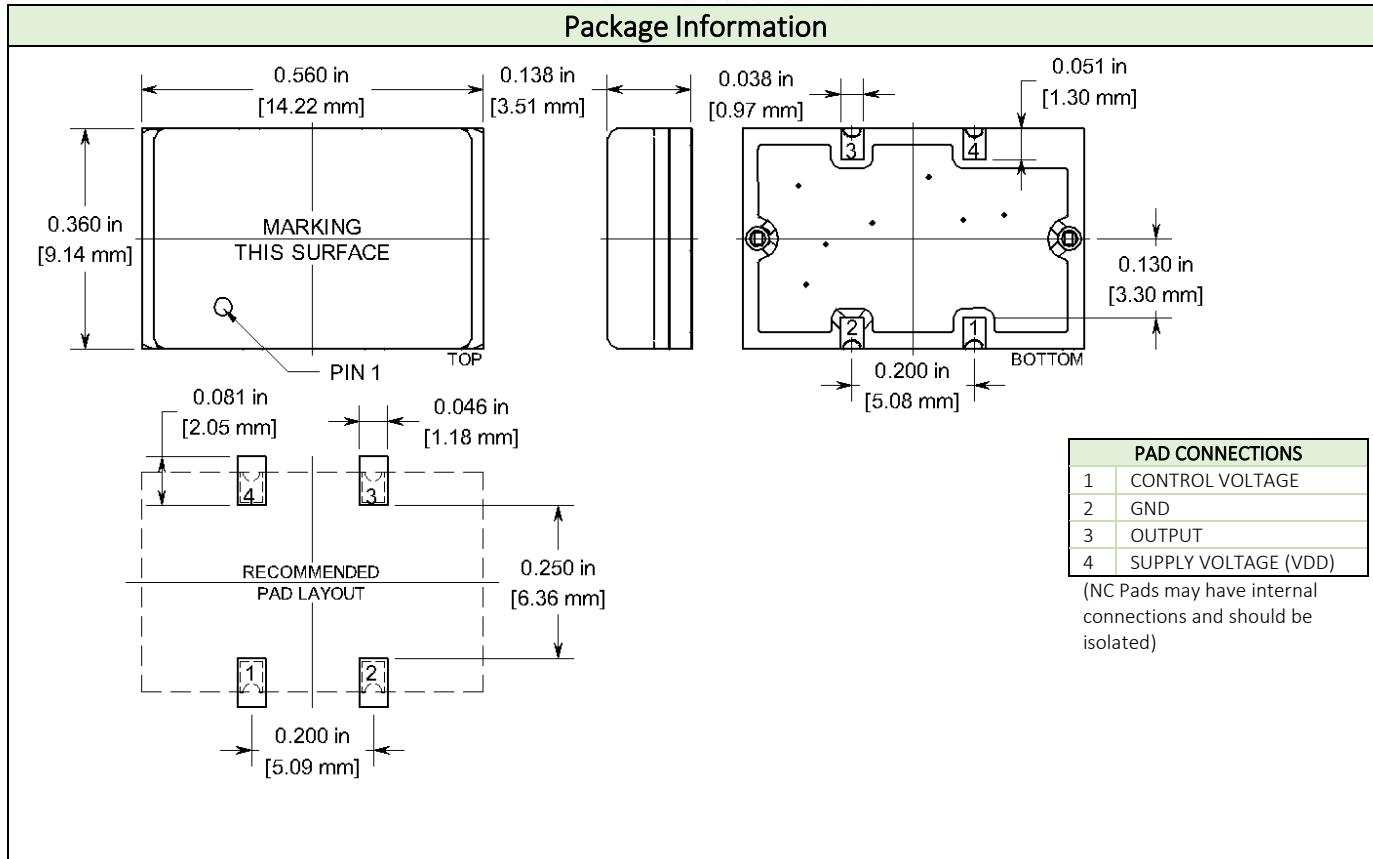
The Order ID (N623-100MHz) is only used to issue the preliminary quote. The Part Number (N623-1) for the quoted Electrical Characteristics, Screenings, and other options, will be provided with the Greenray Sales Order.

Other specification options are available, please use the contact information below for more information.



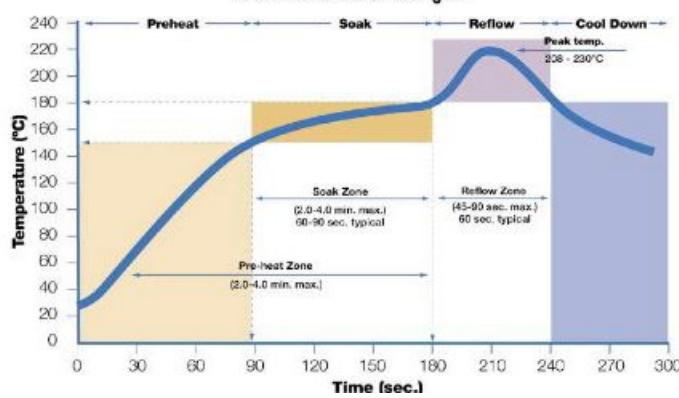
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Recommended Solder Reflow Profiles

Standard solder paste reflow profile for paste containing alloys:
Sn63Pb37 or Sn62Pb36Ag02



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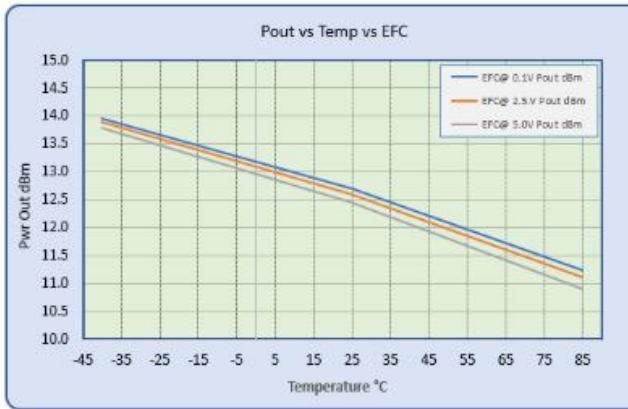
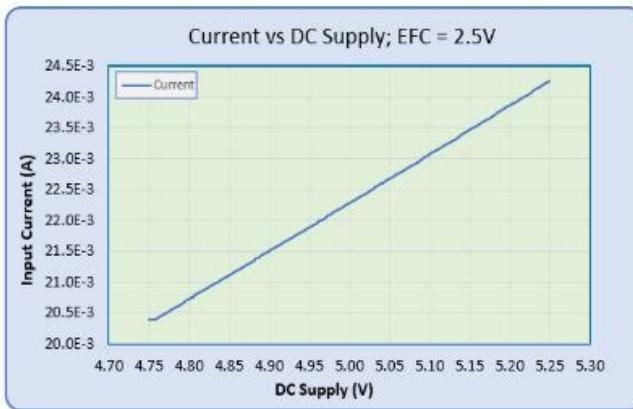
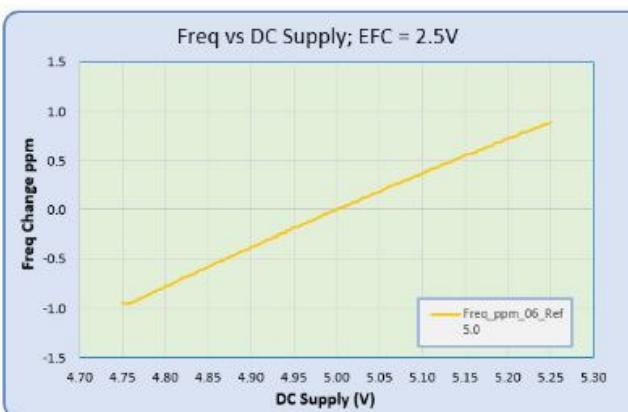
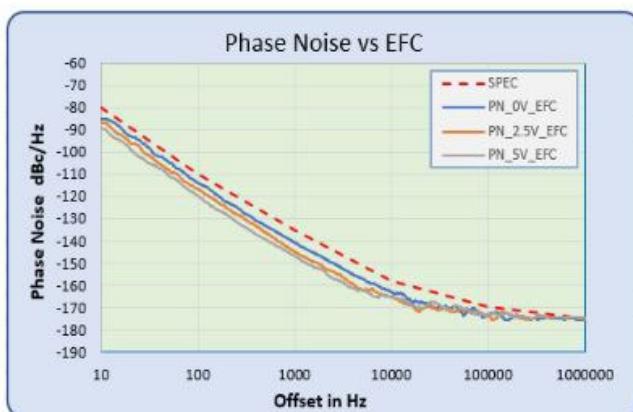
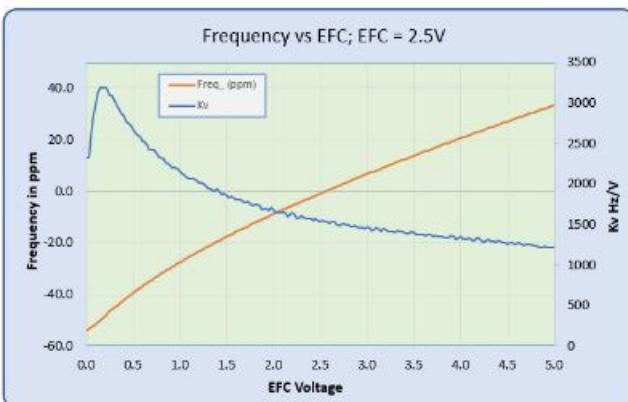
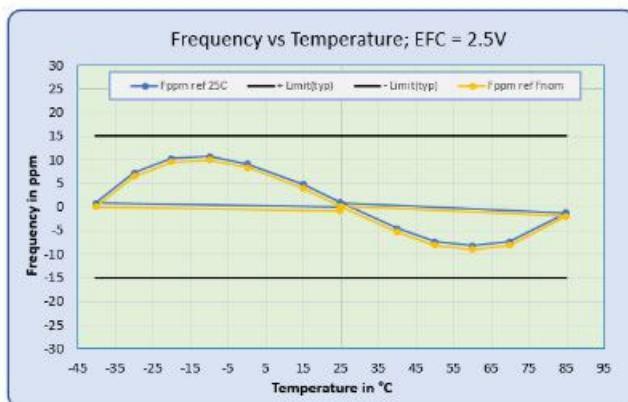


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Typical Electrical Performance Plots



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