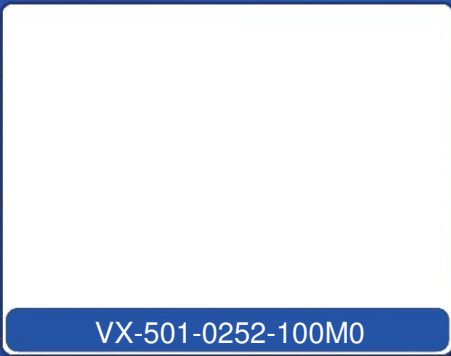


Helping Customers Innovate, Improve & Grow



**Nominal frequency (f0) 100 MHz**

### Performance Specifications

#### Frequency stabilities

Parameter	Min	Typical	Max	Units	Condition
Additional information	APR > ±20ppm incl. df vs initial, temp -40...85°C, dVs, dLoad, aging				

#### Frequency Tuning

Parameter	Min	Typical	Max	Units	Condition
Absolute pulling range (APR) (df/f0)	20			ppm	ext. tuning voltage @ 0 to 3.3V
Linearity			10	%	
slope (pos./neg.)	positiv				
Frequency control input impedance	1000			kOhm	

#### RF output

Parameter	Min	Typical	Max	Units	Condition
Signal	LVCMOS				
Load	13.5	15	16.5	pF	
Fan out	3				
Rise Time			3	ns	@20 to 80 %Vout
Fall Time			3	ns	@80 to 20 %Vout
Duty cycle	45		55	%	@1.65 V
V Low			0.3	V	
V High	2.5			V	
Spurious			-100	dBc	

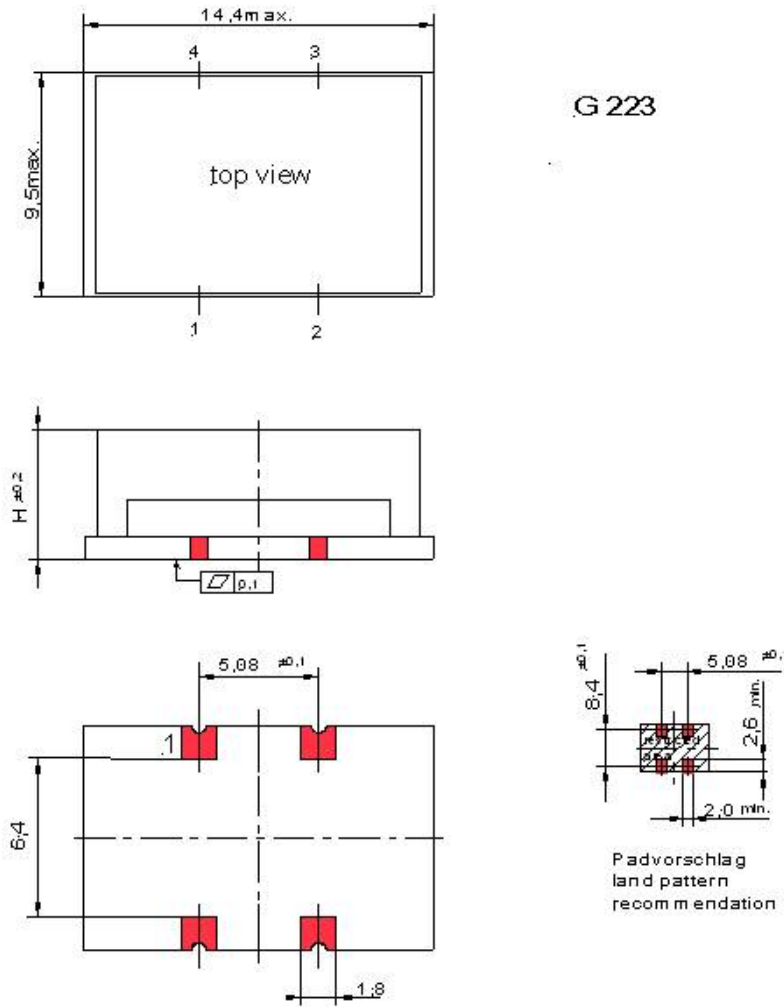
Supply voltage					
Parameter	Min	Typical	Max	Units	Condition
Supply voltage (Vs)	3	3.3	3.6	V	
Current consumption steady state			24	mA	@ Vsnom & 25 °C

Additional Parameters					
Parameter	Min	Typical	Max	Units	Condition
Phase Noise		-77		dBc/Hz	@10Hz
		-112		dBc/Hz	@100Hz
		-137		dBc/Hz	@1kHz
		-153		dBc/Hz	@10kHz
		-161		dBc/Hz	@100kHz
		-165		dBc/Hz	@1MHz
		-166		dBc/Hz	@10MHz
Jitter			0.1	psec (RMS)	@ 12kHz to 80MHz
Additional information	Jitter typ 0.06psec				
Processing & Packing	handling&processing note				

Additional Environmental Conditions	
Parameter	Description
RoHS compliance	100% RoHS 6 compliant
Washable	non-washable device
ESD HBM	JESD22-A114F Class 1C - 10* 2000V
Mechanical Shock	MIL-STD-202 Meth 213B Cond. C - 100g 6ms 6 shocks in each direction
Vibration, Sine	MIL-STD-883 Meth 2007 Cond A - 20g 20-2000Hz 4x in each 3 axis 4min sweep time
Moisture Sen. Level	JESD22-A113-B - only if > MSL 1
Solderability	J-STD-002C Cond. A, Trough hole device; Cond.B, SMD ( correspond to MIL-STD-883 Meth 2003) - 255°C (dipping Time 5 ±0,5sec.) Dip&Look with 8h damp pre-treatment: solder wetting >95%
High temp operating life(HTOL)	MIL-STD-202 Meth108A Cond C - 1000h @ 105°C under voltage
Low temp operating life(LTOL)	IEC 60068-2-1 Cond. Ae - Ta= -40°C, >1000 hours with bias for OCXO
Reflow Simulation Test	J-STD-020D - Total 3x Lead free profile (for SMD)

Absolute Maximum Ratings					
Parameter	Min	Typical	Max	Units	Condition
Operable temperature range	-40		+85	°C	
Storage temperature range	-40		+90	°C	

# Enclosure



all units in mm

Enclosure Info	
Parameter	Description
Type	G223B
Height	5.9 mm
Pin Connections	1: Vc (control voltage) 2: GND(Case) 3: RF-Output 4: Vs (supply voltage)
Marking	VX-501-0252 100M000 * VI AYYWW * pin-1 marking
Package cover material	Metal
Package base material	FR4

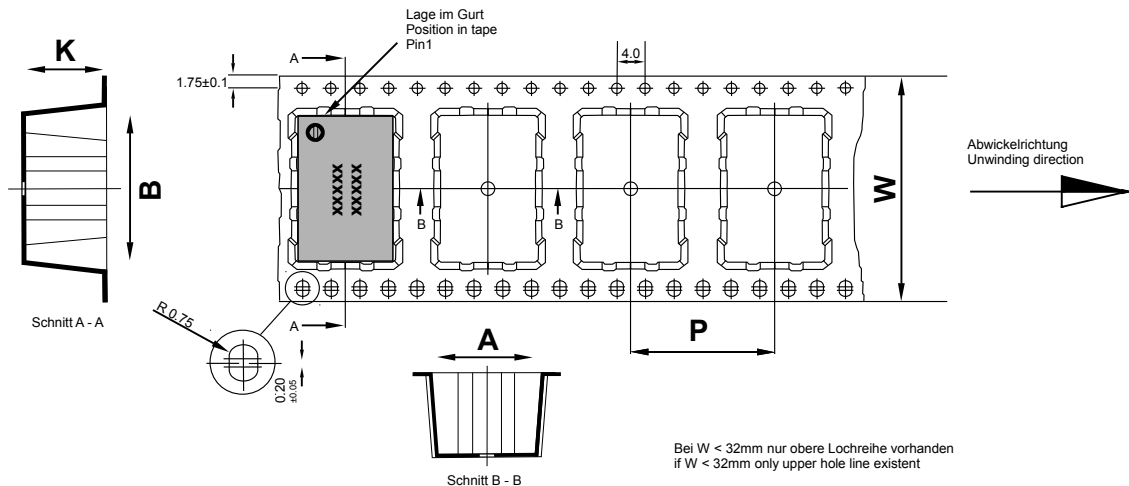
## Solder profile

Recommended reflow solder profile according IPC/JEDEC J-STD-020 (latest revision)

Additional Information:

This SMD oscillator has been designed for pick and place reflow soldering  
SMD oscillators must be on the top side of the PCB during the reflow process.

## Standard shipping method



Maßangaben in mm:

A, B und K Maße von Bauelement abhängig

Fertigungstoleranzen entsprechen der DIN IEC 286-3

Dimension in mm:

A, B und K are dependent upon component dimensions

production tolerance complying DIN IEC 286-3

All dimensions in millimeters unless otherwise stated

### Reel Info

Tape width W [mm]	Quantity per meter	Quantity per reel	P [mm]	A [mm]	B [mm]	K [mm]
24	83.3	850	12	9.8	15	6.4

**Notes:** Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).  
Subject to technical modification.

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