Nominal frequency (f0) **100 MHz**

Frequency stabilities

Parameter	Frequency stability	Operating temp. range
vs. operating temp. range (df/f@25 °C)	-1 to 1 ppm	-40 ... 85 °C
Parameter	Value	Condition
initial tolerance (df/f0)	-1 to 1 ppm	@Vc = 1.65 V; 25 °C
vs. supply voltage change (df/f)	-0.2 to 0.2 ppm	static; 3.3 V ±5 %
vs. load change (df/f)	-0.1 to 0.1 ppm	static; Load ± 10 %
vs. aging / 15 years (df/f)	<± 7 ppm	@ 40 °C

Frequency tuning

Parameter	Value	Condition
Electrical frequency control (EFC) (df/f0)	-20 to -5 ppm 5 to 20 ppm	ext. tuning voltage @ 0.3 V ext. tuning voltage @ 3 V
Linearity	< 10 %	
Frequency control input impedance	> 50 kOhm	

RF output

Parameter	Value	Condition
Signal	LVCMOS	
Load	15 pF ±10 %	
Fan out	3	
Rise Time	< 3 ns	@ 10 to 90 %Vout
Fall Time	< 3 ns	@ 90 to 10 %Vout
Duty cycle	40 / 60 %	@ 1.65 V
V Low	x < 0.33 V	
V High	x > 2.97 V	
rise/fall time typical: 1ns		

Supply voltage

Parameter	Value	Condition
Supply voltage (Vs)	3.3 V ± 5 %	
Current consumption steady state	< 30 mA	@ Vsnom & 25 °C

Additional Parameters

Parameter	Value	Condition	
Phase Noise	< -75 dBc/Hz < -100 dBc/Hz < -130 dBc/Hz < -150 dBc/Hz	10 Hz 100 Hz 1000 Hz 10 kHz	typ values
Additional information sub harmonics: <-70dBc aging: <=5ppm/5years			
Processing & Packing	handling&processing note		

Additional environmental conditions

Tensile strength of leads DIN IEC 68 T2-21 (Ua 1)
Flexibility of leads DIN IEC 68 T2-21 (Ub)
Sealing test A nicht dicht (not hermetically sealed)
Solderability DIN IEC 68 T2-20 (Ta)
Solvent resistance EN 60068-2-45, Test xA non-washable device

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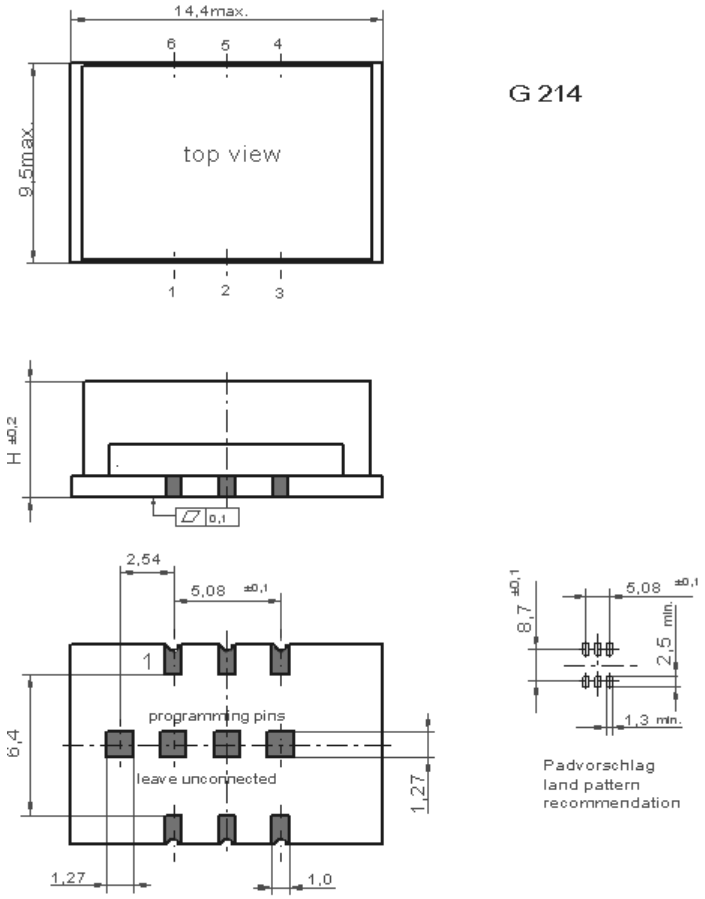
Absolute Maximum Ratings

Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-45		90	°C	
Storage temperature range	-55		105	°C	

Enclosure

Type G214B	Height 5.9 mm



all units in mm

Pin Connections
Pin 1: Vc (control voltage)
Pin 2: N.C.
Pin 3: GND(Case)
Pin 4: RF-Output
Pin 5: N.C.
Pin 6: Vs (supply voltage)

Marking
C2310A1-142
100,000 MHz
* YI AYYWW
* pin-1 marking

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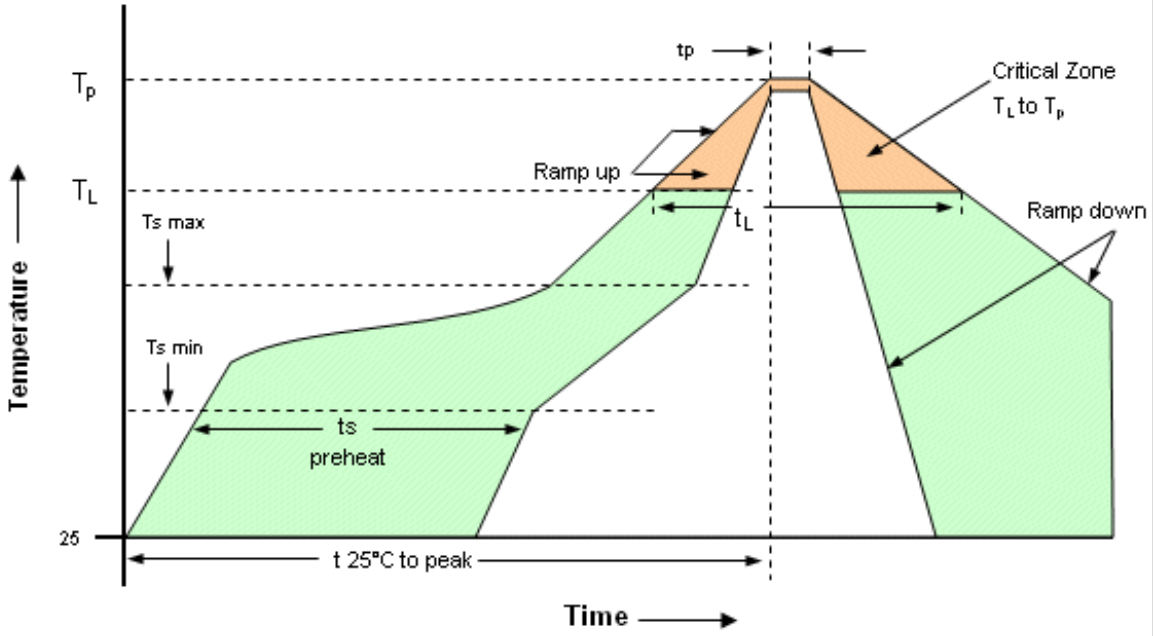
Reflow profile



Profile Feature	Pb-Free Assembly/Sn-Pb Assembly
Average ramp-up rate (TL to Tp)	3°C/second max.
Preheat -Temperature Min (Tsmin) -Temperature Min (Tsmax) -Time (min to max) (ts)	150°c 200°c 60-180 seconds
Tsmax to TL - Ramp-up Rate	3°C/second max.
Time maintainted above - Temperature (TL) - Time (tL)	217°C 60-150 seconds
Peak Temperature (Tp)	max 260°C
Time within 5°C of actual Peak Temperature (tp)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.
Note: All temperatures refer to topside of the package, measured on the package body surface.	
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.	

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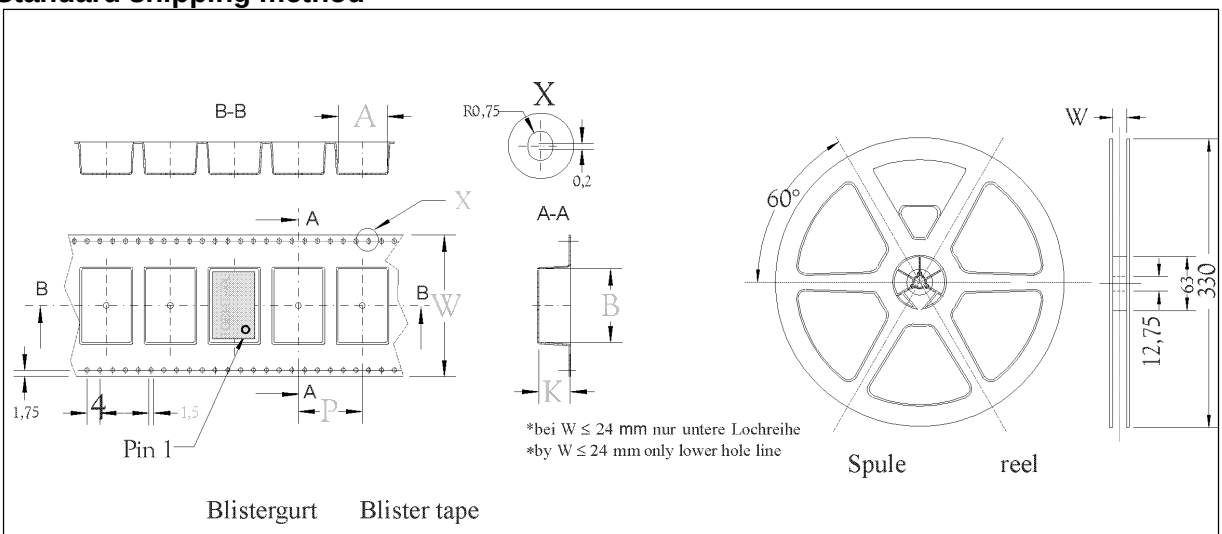
Standard shipping method



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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