

**Nominal frequency (f0)**

**100 MHz**

**Frequency stabilities**

Parameter	Frequency stability	Operating temp. range
Over all (df/f0) vs. operating temp. range (df/f@25 °C)	-4.6 to 4.6 ppm -0.8 to 0.8 ppm	0 ... 70 °C
Parameter	Value	Condition
initial tolerance (df/f0) vs. supply voltage change (df/f) vs. aging / 20 years (df/f)	-0.8 to 0.8 ppm -0.2 to 0.2 ppm <± 2.8 ppm	@25 °C static; 3.3 V ±5 % @ 40 °C

**RF output**

Parameter	Value	Condition
Signal	LVC MOS	
Load	15 pF ±10 %	
Rise Time	< 5 ns	@ 20 to 80 %Vout
Fall Time	< 5 ns	@ 80 to 20 %Vout
Duty cycle	40 / 60 %	@ 1.65 V
V Low	x < 0.33 V	
V High	x > 2.97 V	

**Supply voltage**

Parameter	Value	Condition
Supply voltage (Vs)	3.3 V ± 5 %	
Current consumption steady state	< 40 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
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

**Absolute Maximum Ratings**

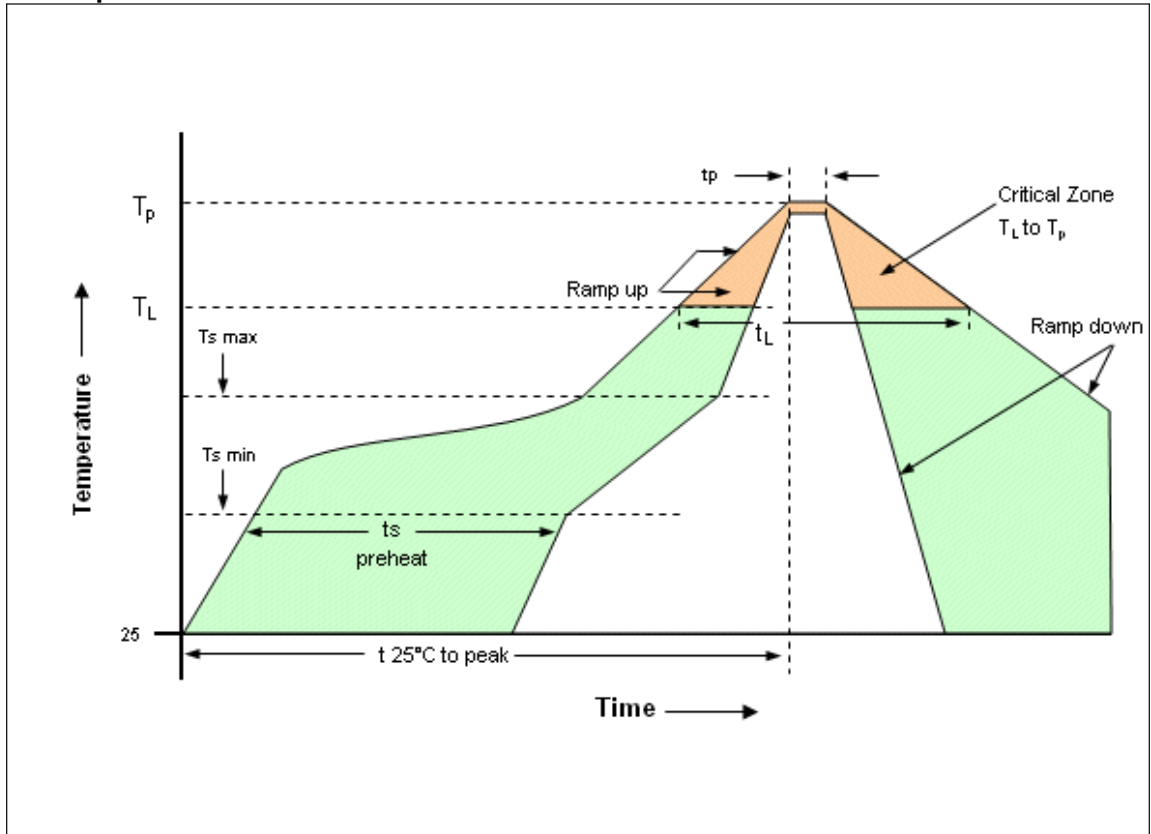
Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-40		85	°C	
Storage temperature range	-55		105	°C	

**Enclosure**

Type G214B	Height 5.9 mm
<p>Pin Connections</p> <p>Pin 1: N.C.          Pin 2: N.C.          Pin 3: GND(Case)          Pin 4: RF-Output          Pin 5: N.C.          Pin 6: Vs (supply voltage)</p>	
<p>Marking</p> <p>C2310A1-102          100,000 MHz          * VI AYYWW          * pin-1 marking</p>	

all units in mm

**Reflow profile**



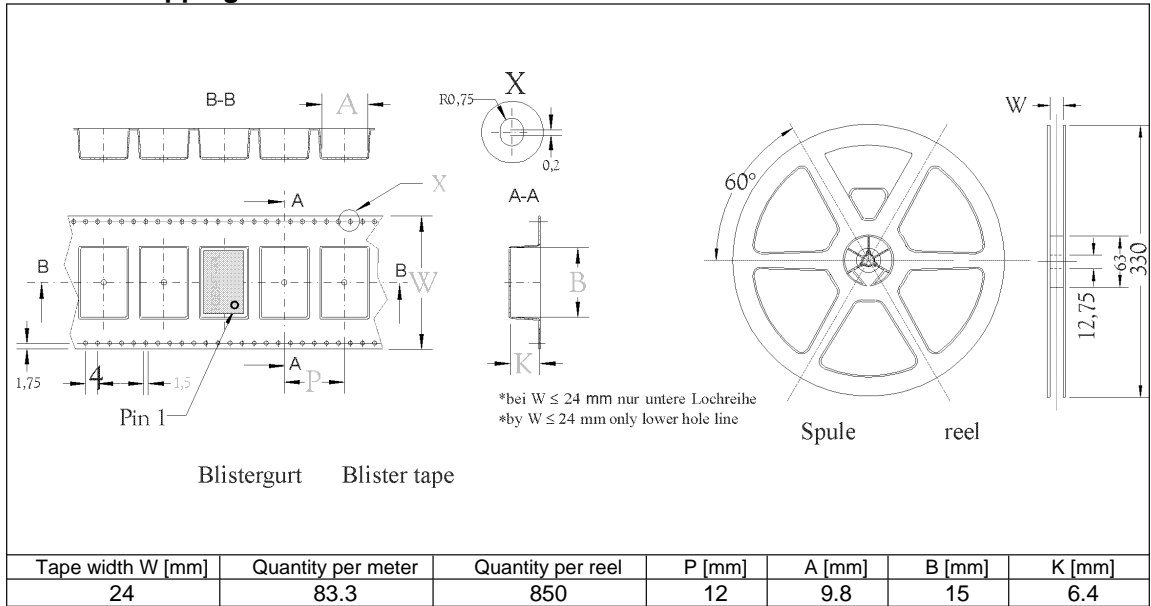
Profile Feature	Pb-Free Assembly/Sn-Pb Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat -Temperature Min (T <sub>smin</sub> )	150°C
-Temperature Min (T <sub>smax</sub> )	200°C
-Time (min to max) (t <sub>s</sub> )	60-180 seconds
T <sub>smax</sub> to TL - Ramp-up Rate	3°C/second max.
Time maintained above - Temperature (TL)	217°C
- Time (t <sub>L</sub> )	60-150 seconds
Peak Temperature (T <sub>p</sub> )	max 260°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	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.

**Standard shipping method**



**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.