

**Nominal frequency (f0)**

**245.76 MHz**

**Frequency stabilities**

Parameter	Frequency stability	Operating temp. range
vs. operating temp. range (df/f@25 °C)	-30 to 30 ppm -20 to 20 ppm	-40 ... 85 °C 0 ... 70 °C
Parameter	Value	Condition
initial tolerance (df/f)	-10 to 10 ppm	@Vc = 1.65 V; 25 °C
vs. supply voltage change (df/f)	-1 to 1 ppm	static; 3.3 V ±5 %
vs. load change (df/f)	-1 to 1 ppm	static; Load ± 10 %
vs. aging / 20 years (df/f)	± 10 ppm	@ 40 °C
APR >±20ppm incl.: 20 years aging, temp. stab.0..70°C, load, supply and initial tolerance		

**Frequency tuning**

Parameter	Value	Condition
Electrical frequency control (EFC) (df/f0)	-200 to -85 ppm 85 to 200 ppm	ext. tuning voltage @ 0 V ext. tuning voltage @ 3.3 V
Linearity	< 10 %	
Frequency control input impedance	> 50 kOhm	
Modulation bandwidth	> 10000 Hz	@ -3 dB

**RF output**

Parameter	Value	Condition
Signal	LVPECL	
Load	50 Ohm ±10 %	
Rise Time	< 0.6 ns	@ 20 to 80 %Vout
Fall Time	< 0.6 ns	@ 80 to 20 %Vout
Duty cycle	45 / 55 %	@ 2 V
V Low	1.355 < x < 1.68 V	
V High	2.155 < x < 2.42 V	
Sub Harmonics	<- 45 dBc	
Spurious	<- 45 dBc	
Enable function	Enable Function	output
	Pin 2	Pin 4
	high	data
	open	data
	low	no data
		Pin 5
		compl. data
		compl. data
		no data

**Supply voltage**

Parameter	Value	Condition
Supply voltage (Vs)	3.3 V ± 5 %	
Current consumption steady state	< 100 mA	@ Vsnom & 25 °C

**Additional Parameters**

Parameter	Value	Condition
Phase Noise	< -70 dBc/Hz	10 Hz
	< -90 dBc/Hz	100 Hz
	< -120 dBc/Hz	1000 Hz
	< -130 dBc/Hz	10 kHz
	< -145 dBc/Hz	100 kHz
Jitter	< 0.50 psec (RMS)	@ 12 kHz to 20 MHz
Processing & Packing	handling&processing note	

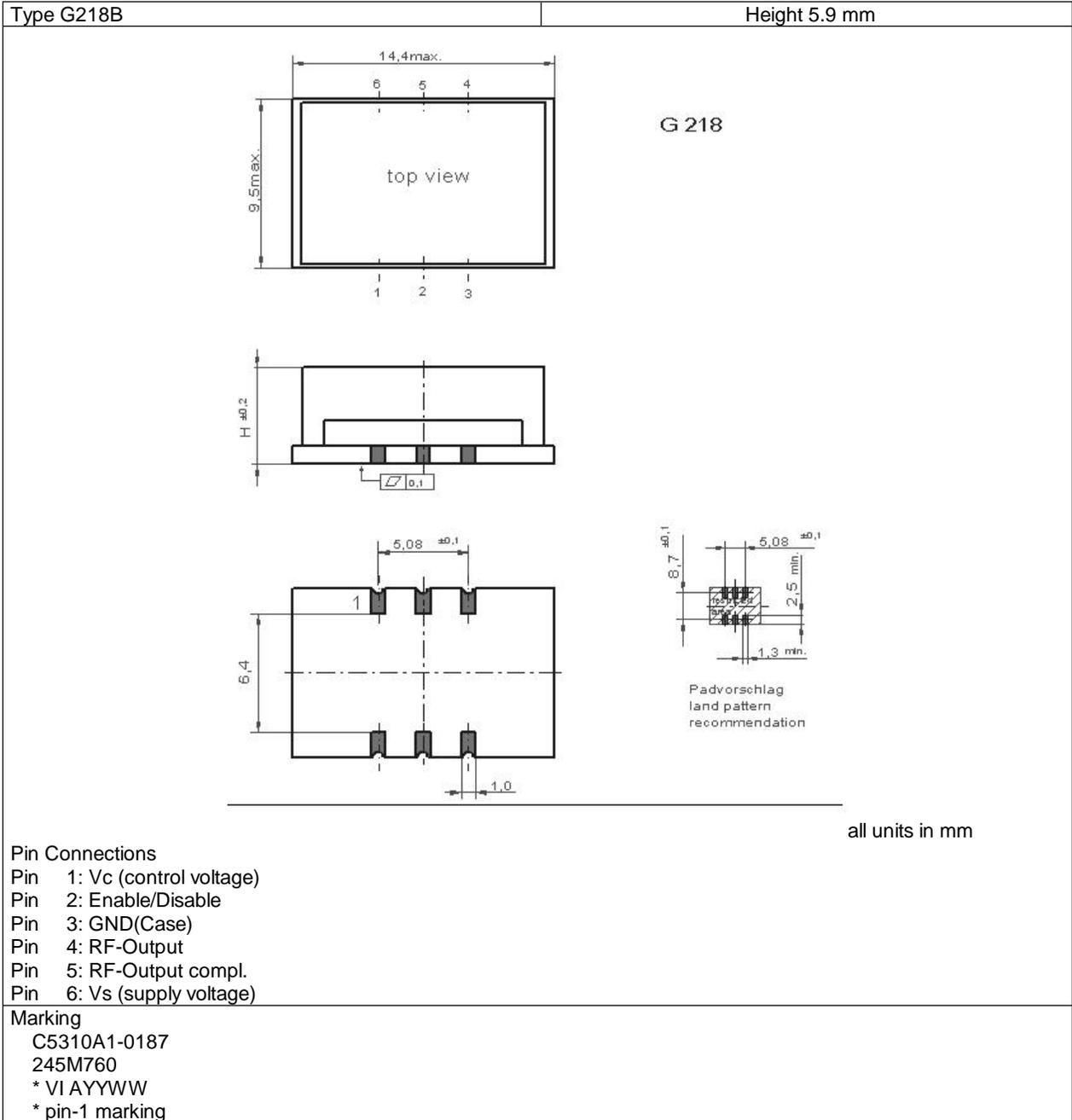
**Additional environmental conditions**

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) 100% RoHS compliant
Solvent resistance EN 60068-2-45, Test xA non-washable device

**Absolute Maximum Ratings**

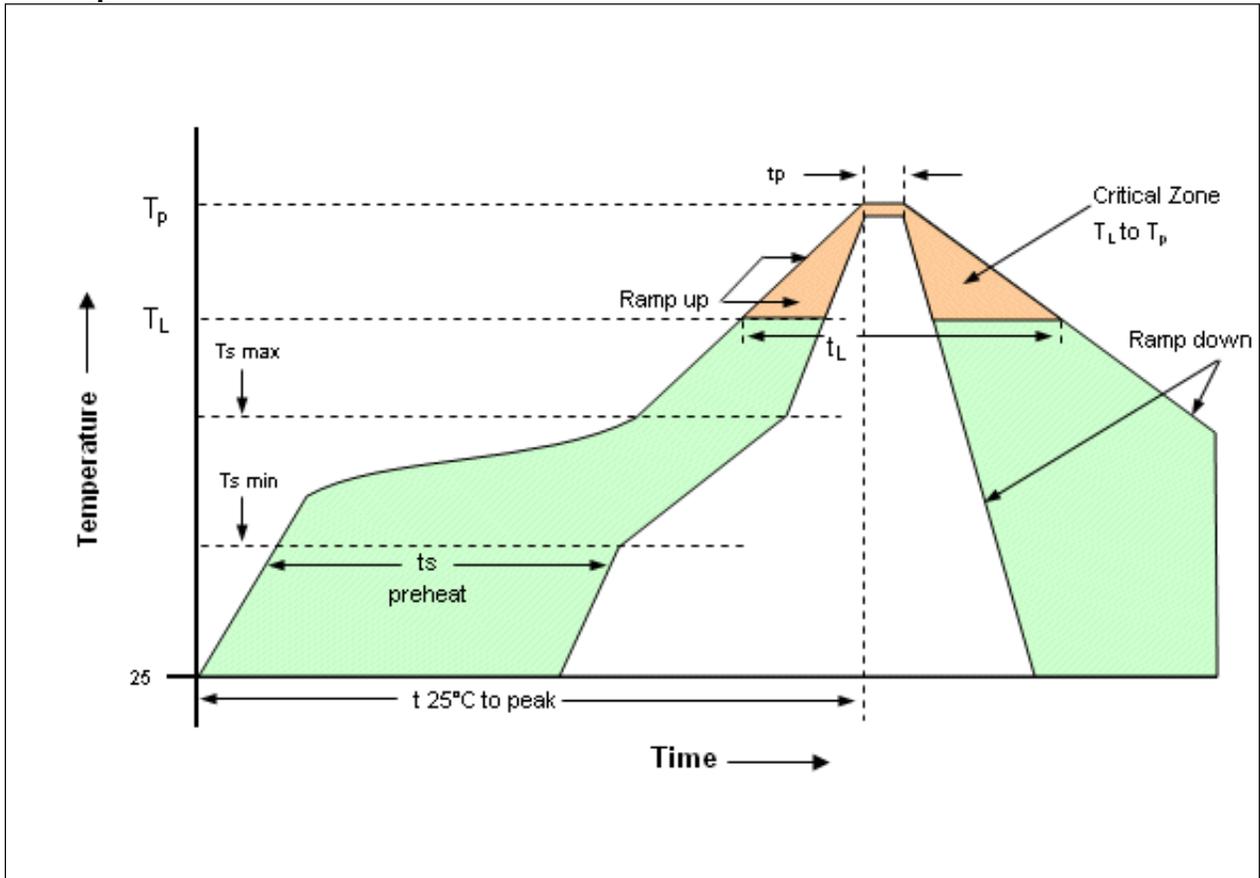
Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-40		85	°C	
Storage temperature range	-50		90	°C	

**Enclosure**



all units in mm

**Reflow profile**



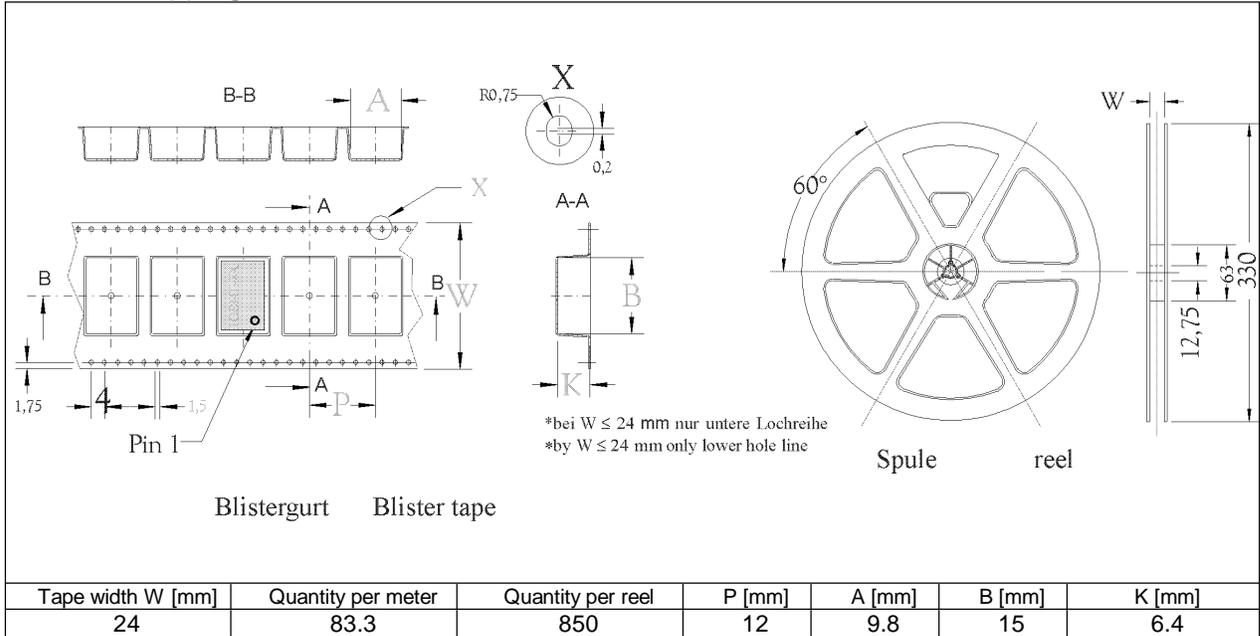
Profile Feature	Pb-Free Assembly/Sn-Pb Assembly
Average ramp-up rate (TL to Tp)	3°C/second max.
Preheat -Temperature Min (T <sub>smin</sub> )	150°C
-Temperature Min (T <sub>smax</sub> )	200°C
-Time (min to max) (t <sub>s</sub> )	60-180 seconds
T <sub>smax</sub> to TL - Ramp-up Rate	3°C/second max.
Time 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.

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