

**Nominal frequency (f0)**

**10 MHz**

**Frequency stabilities**

Parameter	Frequency stability	Operating temp. range
vs. operating temp. range (df/f@25 °C)	-0.28 to 0.28 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)	-0.2 to 0.2 ppm	static; Load ± 10 %
vs. aging / 10 years (df/f)	<± 3 ppm	@ 40 °C
Reflow hysteresis (df/f)	<± 1 ppm	

**Frequency tuning**

Parameter	Value	Condition
Electrical frequency control (EFC) (df/f0)	-30 to -10 ppm 10 to 30 ppm	ext. tuning voltage @ 0.3 V ext. tuning voltage @ 3 V

**RF output**

Parameter	Value	Condition
Signal	clip-sine DC-coupled	
Load	10000 Ohm ±10 %    10 pF ±10 %	
Output power min	0.7 Vpp	@ Load
Output power typ.	1.2 Vpp	@ Load
Output power max	2 Vpp	@ Load
Output is not DC free. Output must be coupled by capacitor (1nF).		

**Supply voltage**

Parameter	Value	Condition
Supply voltage (Vs)	3.3 V ± 5 %	
Current consumption steady state	< 10 mA	@ Vsnom & 25 °C

**Additional Parameters**

Parameter	Value	Condition	
Phase Noise	< -90 dBc/Hz	10 Hz	max values
	< -118 dBc/Hz	100 Hz	
	< -140 dBc/Hz	1000 Hz	
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 washable device

**Absolute Maximum Ratings**

Parameter	Min	Typ	Max	Units	Condition
Supply voltage (Vs)			6	V	
Operable temperature range	-40		85	°C	

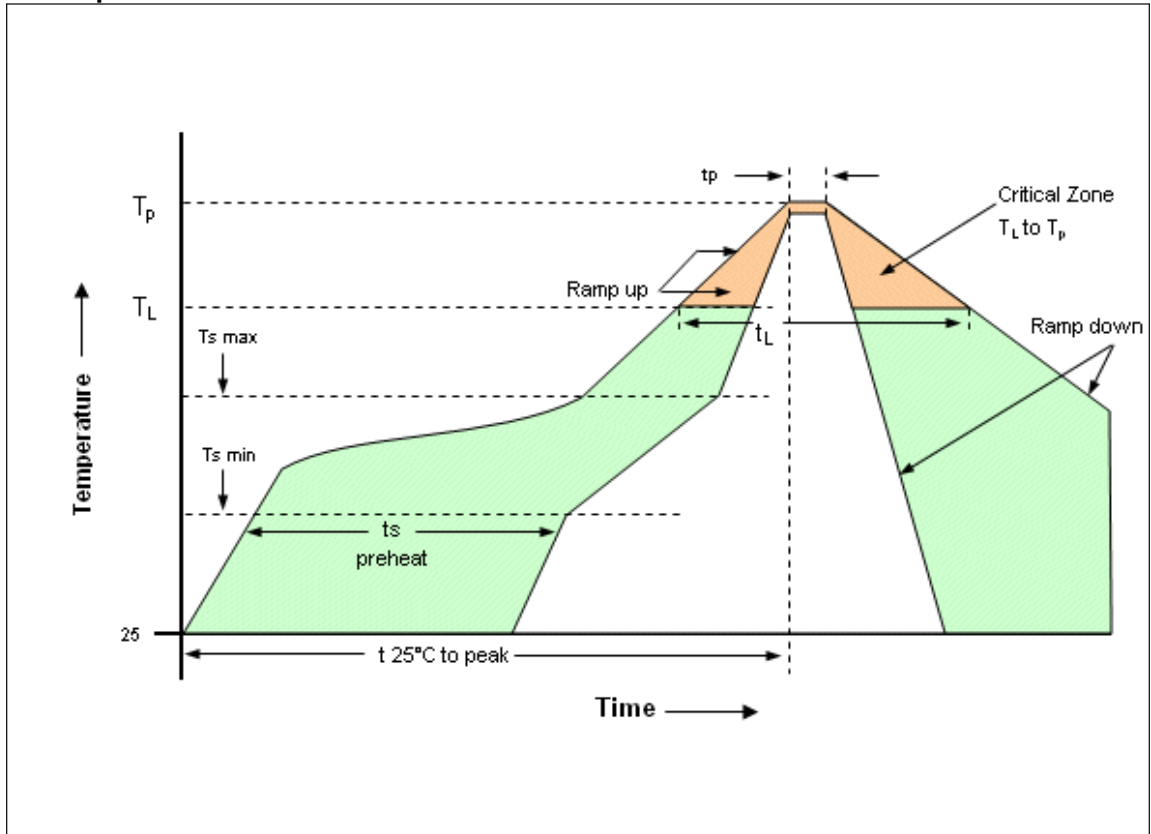
**Absolute Maximum Ratings**

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

**Enclosure**

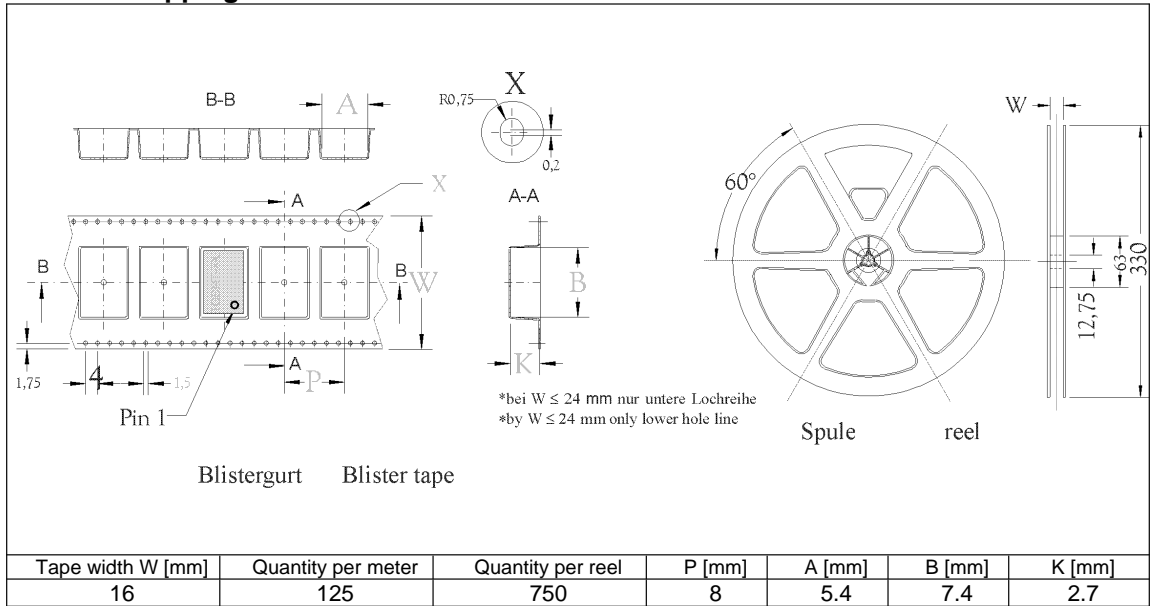
Type G211A	Height 2.3 mm
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 50%;"> <p style="text-align: center;"><b>G 211</b></p> <p>The stand offs are brass balls plated with 2-3µm Ni and 6-10µm Sn</p> <p style="text-align: center;">alternative land pattern</p> <p style="text-align: center;">Padvorschlag land pattern recommendation</p> </div> </div> <p style="text-align: right; margin-top: 20px;">all units in mm</p>	
<p><b>Pin Connections</b></p> <p>Pin 1: Vc (control voltage)</p> <p>Pin 2: GND (Case)</p> <p>Pin 3: RF-Output</p> <p>Pin 4: Vs (supply voltage)</p>	
<p><b>Marking</b></p> <p>2A-109</p> <p>10M000</p> <p>*VAYYWW</p> <p>* pin-1 marking</p>	

**Reflow profile**



Profile Feature	Pb-Free Assembly/Sn-Pb Assembly
Average ramp-up rate (TL to Tp)	3°C/second max.
Preheat -Temperature Min (Tsmín)	150°C
-Temperature Min (Tsmáx)	200°C
-Time (min to max) (ts)	60-180 seconds
Tsmáx to TL - Ramp-up Rate	3°C/second max.
Time maintained above - Temperature (TL)	217°C
- Time (tL)	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.	

**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.