Nominal frequency (f0) 20 MHz

Frequency stabilities

Parameter	Frequency stability	Operating temp. range
vs. operating temp. range (df/f@25 °C)	-0.28 to 0.28 ppm -0.28 to 0.28 ppm	0 ... 70 °C 10 ... 40 °C
Parameter	**Value**	**Condition**
initial tolerance (df/f0) vs. supply voltage change (df/f) vs. load change (df/f) vs. aging / 10 years (df/f)	-1 to 1 ppm -0.2 to 0.2 ppm -0.1 to 0.1 ppm <± 3 ppm	@25 °C static; 3.3 V ±5 % static; Load ± 10 % @ 40 °C

RF output

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

Supply voltage

Parameter	Value	Condition
Supply voltage (Vs) Current consumption steady state	3.3 V ± 5 % < 8 mA	 @ Vsnom & 25 °C

Additional Parameters

Parameter	Value	Condition	
Phase Noise	< -90 dBc/Hz < -118 dBc/Hz < -140 dBc/Hz	10 Hz 100 Hz 1000 Hz	max 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) 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)	2.7		6	V	
Operable temperature range Storage temperature range	-40 -55		85 105	°C °C	

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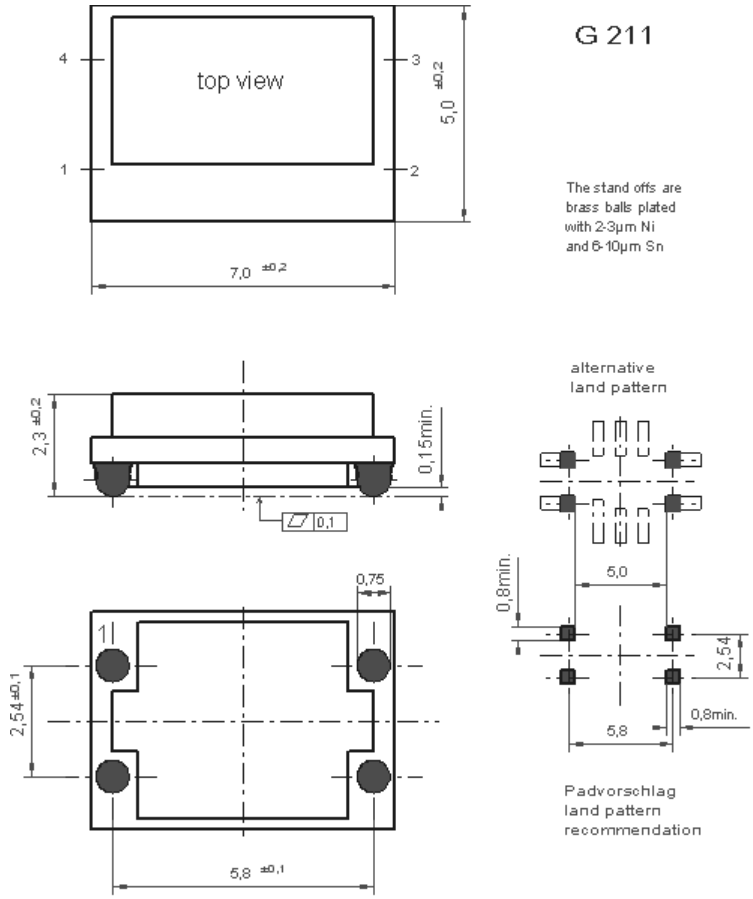
Enclosure

Type G211A	Height 2.3 mm



all units in mm

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

Marking
2A-108
20M000
*VAYYWW
* pin-1 marking

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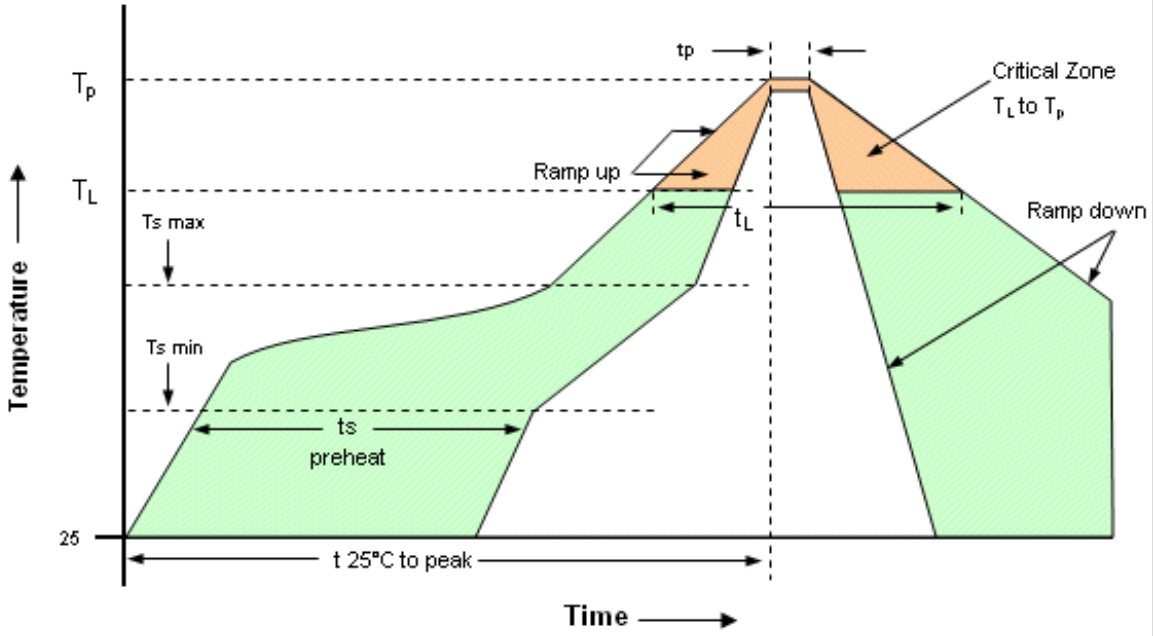
Reflow profile



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.	

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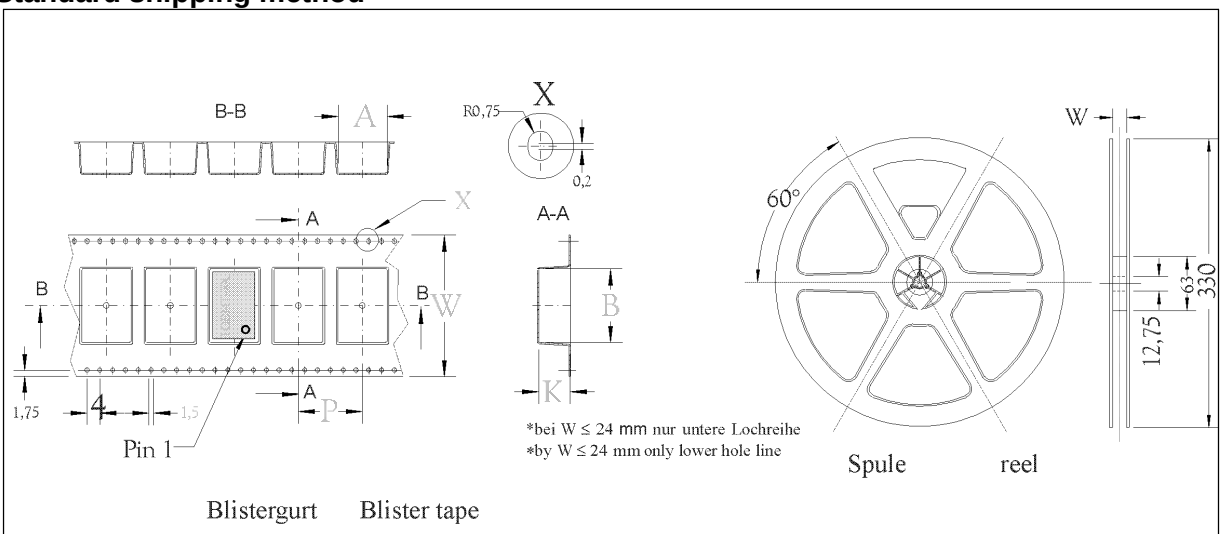
Standard shipping method



Tape width W [mm]	Quantity per meter	Quantity per reel	P [mm]	A [mm]	B [mm]	K [mm]
16	125	750	8	5.4	7.4	2.7

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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