

Nominal frequency (f0)
1968.75 MHz
Frequency stabilities

Parameter	Frequency stability	Operating temp. range
APR (under all cond. for the life cycle): >±20ppm pos. slope, 10 +85°C, dVs, dLoad, initial, aging 15y.		

Frequency tuning

Parameter	Value	Condition
Absolute pulling range (APR) (df/f0) slope (pos./neg.)	±20 ppm positiv	ext. tuning voltage @ 0.5 to 4.5 V
Frequency control input impedance	> 100 kOhm	

RF output

Parameter	Value	Condition
Signal	sinewave	
Load	50 Ohm ±10 %	
Output power min	8 dBm	@ Load
Output power typ.	10 dBm	@ Load
Output power max	12 dBm	@ Load

Supply voltage

Parameter	Value	Condition
Supply voltage (Vs)	5 V ± 5 %	
Current consumption steady state	< 150 mA	@ Vsnom & 25 °C

Additional Parameters

Parameter	Typ.	Max.	Condition
Phase Noise	-118 -138 -151		dBc/Hz@10000Hz dBc/Hz@100000Hz dBc/Hz@1000000Hz
Parameter	Value		Condition
Jitter	< 0.04 psec (RMS)		@ 12 kHz to 20 MHz
Additional information			
Jitter t.b.d. with sample test result			
No through holes in VCSO PCB --> Routing allowed below device			
Operating temperature range	handling&processing note		
Processing & Packing			

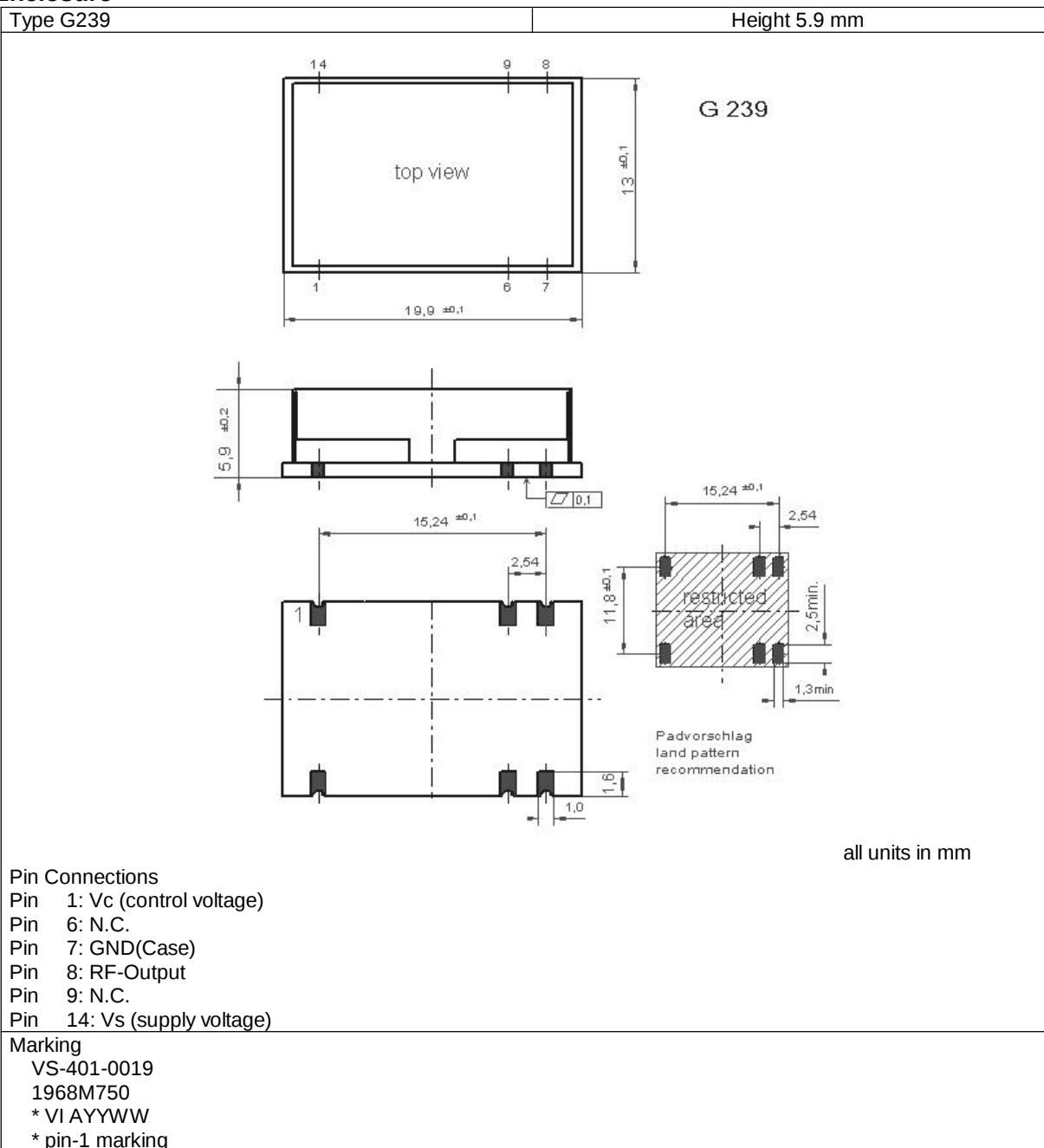
Additional environmental conditions

Damp heat
MSL = 1
Sealing test A
nicht dicht (not hermetically sealed)
Solderability
DIN IEC 68 T2-20 (Ta)
100% RoHS 6 compliant; Pad finish: Au over Ni
Solvent resistance
EN 60068-2-45, Test xA
non-washable device

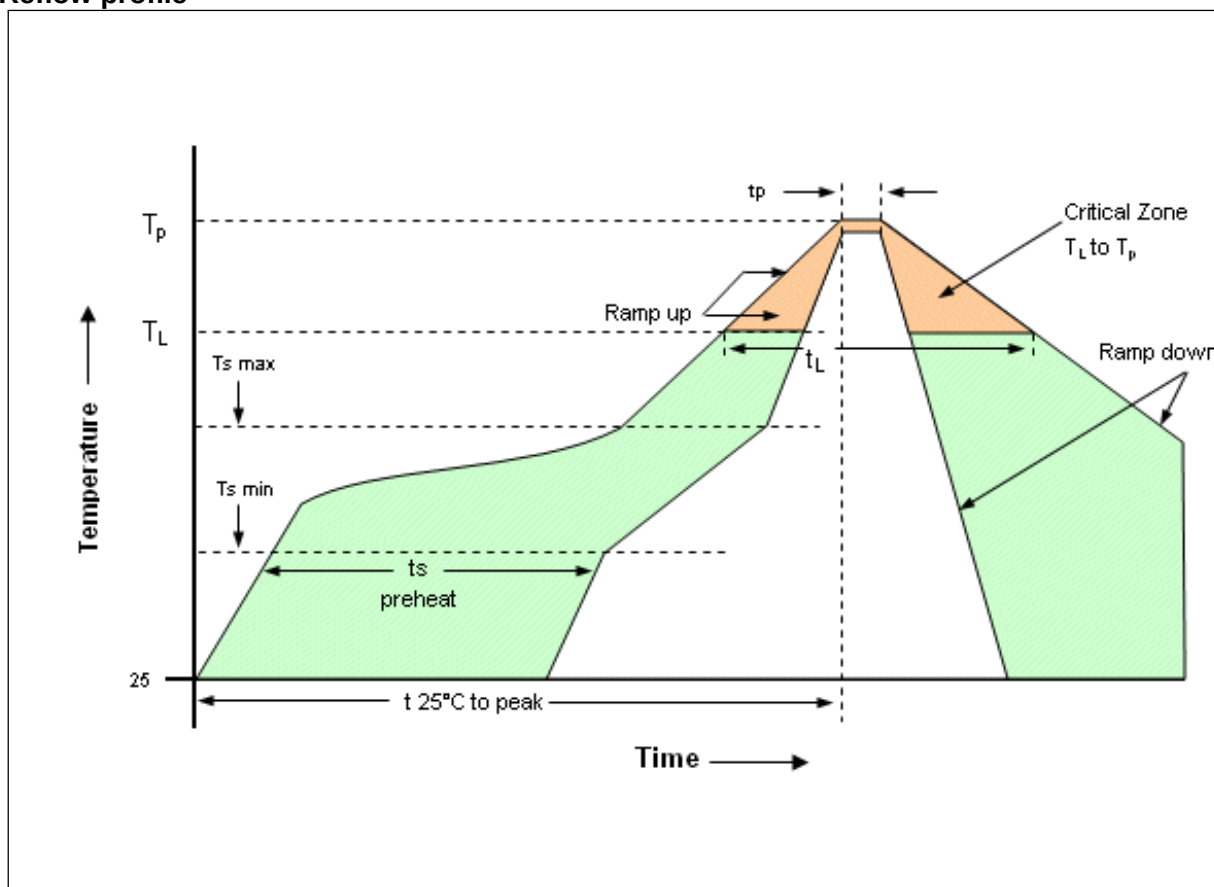
Absolute Maximum Ratings

Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-20		85	°C	
Storage temperature range	-55		105	°C	

Enclosure



Reflow profile



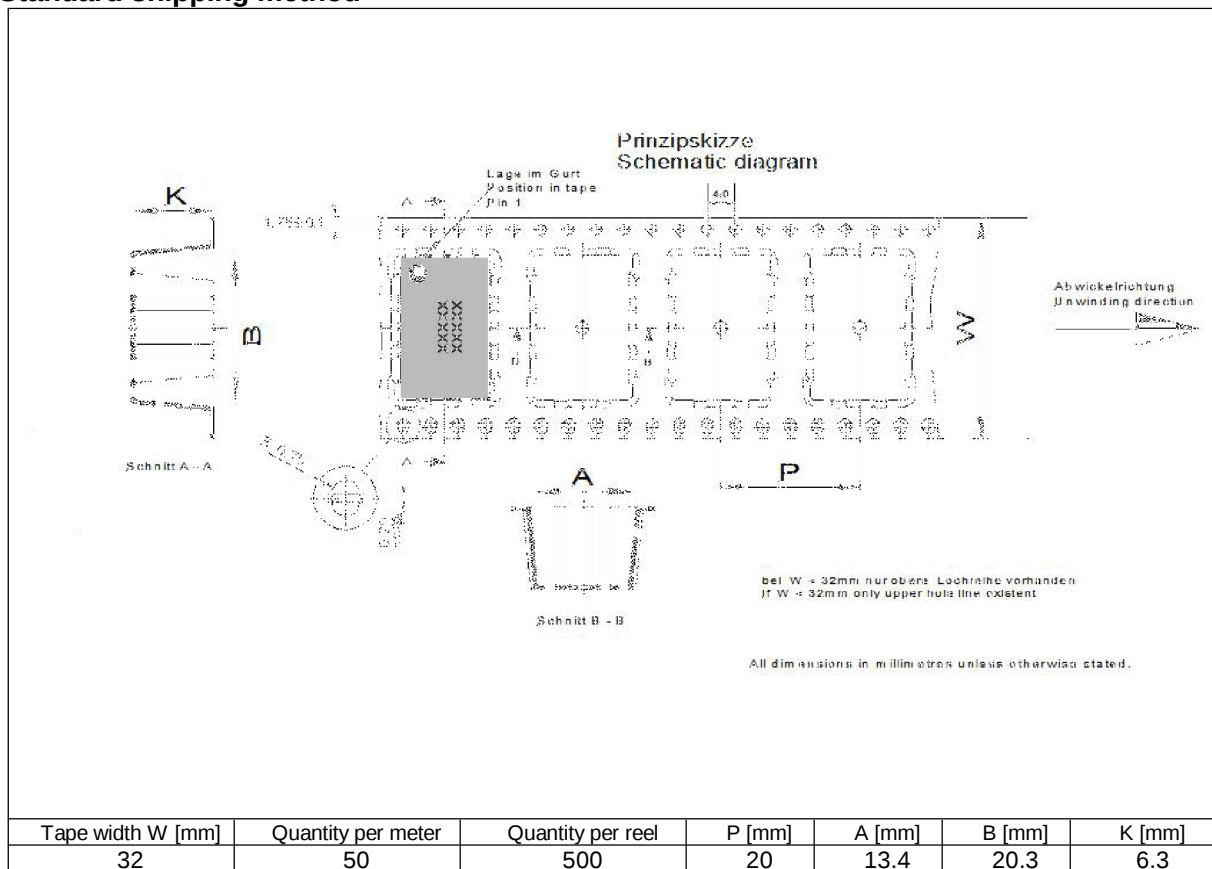
Profile Feature	Pb-Free Assembly/Sn-Pb Assembly
Average ramp-up rate (TL to Tp)	3°C/second max.
Preheat -Temperature Min (Tsmín)	150°C
-Temperature Min (Tsmáx)	200°C
-Time (min to max) (ts)	60-180 seconds
Tsmáx to TL - Ramp-up Rate	3°C/second max.
Time maintained above - Temperature (TL)	217°C
- Time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