

Nominal frequency (f0)
12.8 MHz
Frequency stabilities

Parameter	Frequency stability	Operating temp. range
Over all (df/f0)	-4.6 to 4.6 ppm	
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	@ 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 %
Holdover 24 h	± 0.32 ppm	incl. temp. stab. -40...+85°C
overall incl.: initial, temp. -40...+85°C, supply, load var. and aging 20 years		

RF output

Parameter	Value	Condition
Signal	LVC MOS	
Load	15 pF ± 10 %	
Fan out	3	
Rise Time	< 8 ns	@ 10 to 90 %Vout
Fall Time	< 8 ns	@ 90 to 10 %Vout
Duty cycle	45 / 55 %	@ 1.65 V
V Low	x < 0.33 V	
V High	x > 2.97 V	
Enable function	Enable Function	output
	Pin 8	Pin 5
	high	data
	open	data
	low	no data

Supply voltage

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

Additional Parameters

Parameter	Typ.	Max.	Condition
Phase Noise		-70	dBc/Hz@10Hz
		-100	dBc/Hz@100Hz
		-130	dBc/Hz@1000Hz
		-145	dBc/Hz@10kHz
		-150	dBc/Hz@100kHz
Parameter	Value		Condition
Jitter	< 1.00 psec (RMS)		@ 12 kHz to 20 MHz
Start-up time	< 10 ms		
Additional information			
This SMD oscillator is designed only for pick and place/reflow soldering process. Manual soldering may damage the part and therefore not recommended for the mounting of this oscillator.			
Processing & Packing	handling&processing note		

Additional environmental conditions

Vibration
MIL-STD-883E; Method 2007.3; test condition A
Shock
MIL-STD-883E; Method 2002.4; test condition B
Sealing test A
nicht dicht (not hermetically sealed)
Solderability
DIN IEC 68 T2-20 (Ta); and MIL-STD-883E; Method 2003
100% RoHS 6 compliant

Additional environmental conditions

Solvent resistance EN 60068-2-45, Test xA washable device

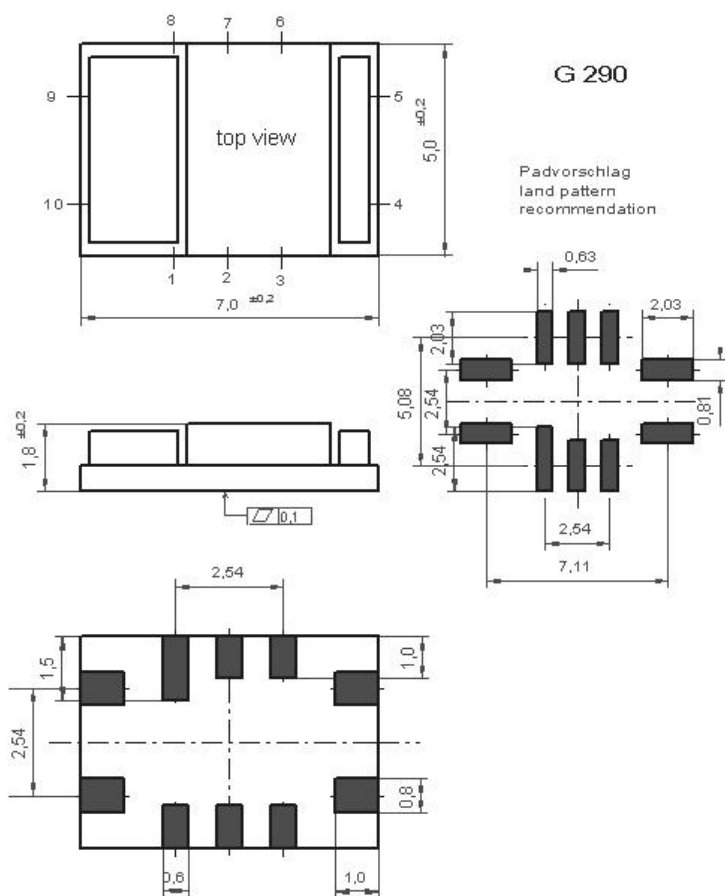
Absolute Maximum Ratings

Parameter	Min	Typ	Max	Units	Condition
Operable temperature range	-40		85	°C	
Storage temperature range	-55		125	°C	

Enclosure

Type G290

Height 1.8 mm



all units in mm

Pin Connections

Pin 1: I.C.	2: N.C.
Pin 3: I.C.	4: GND
Pin 5: RF-Output	6: N.C.
Pin 7: N.C.	8: Enable
Pin 9: V _{supply}	10: N.C.

Marking

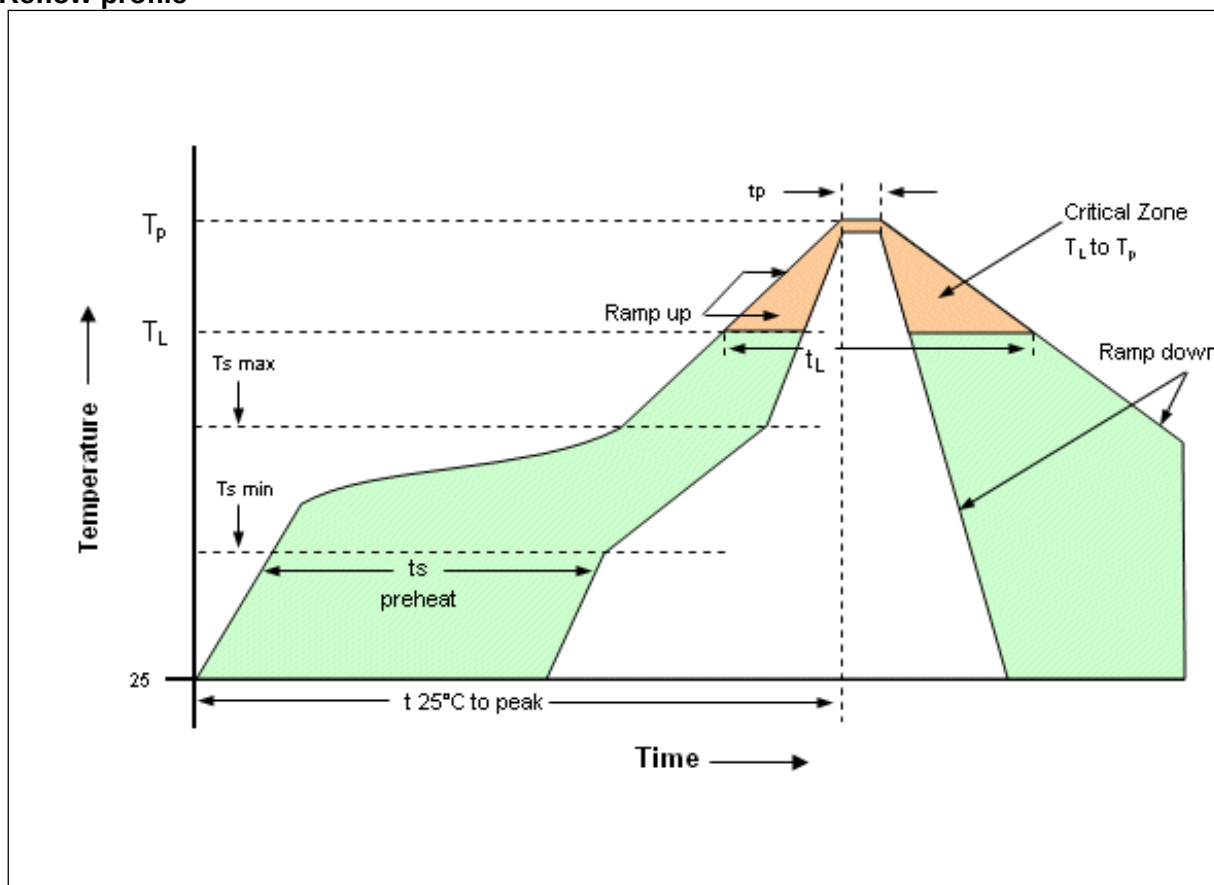
2A-234
12M800
*VAYYWW

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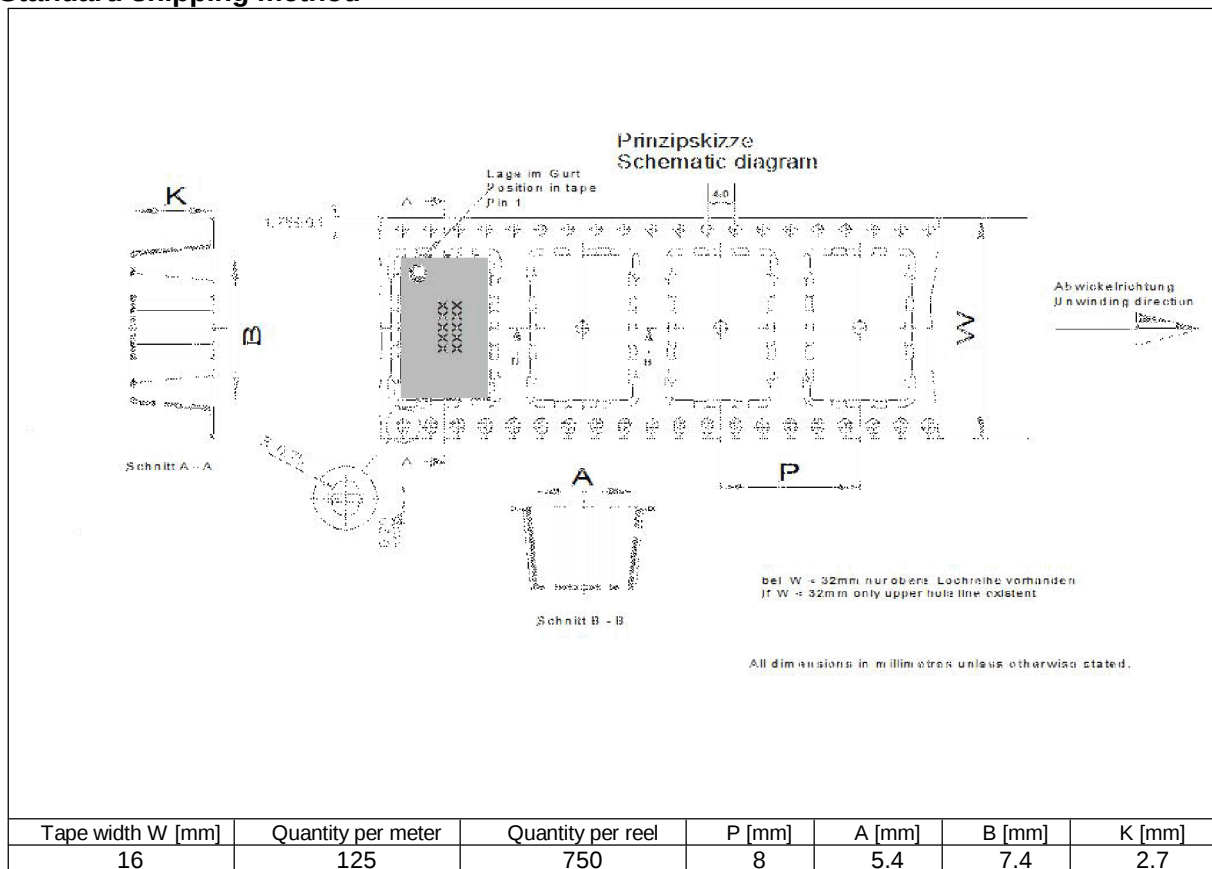
* pin-1 marking

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.

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