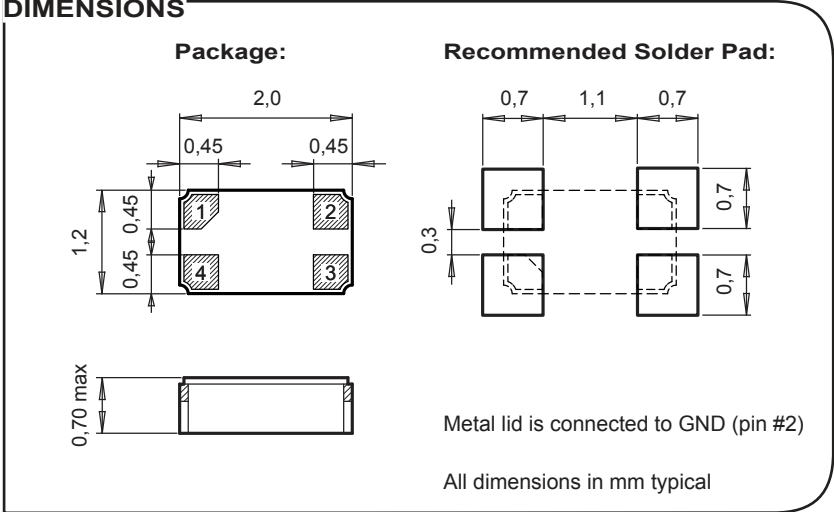
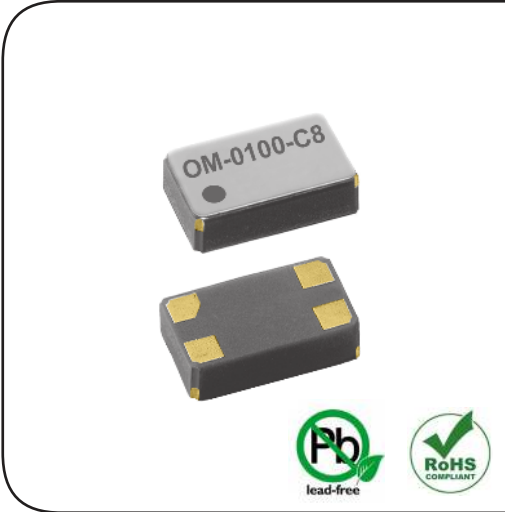


# OM-0100-C8

## Low Power Clock Oscillator 100.000 kHz



### APPLICATIONS

- lot
- Metering
- Industrial
- Automotive
- Health Care
- Wearables, Portables

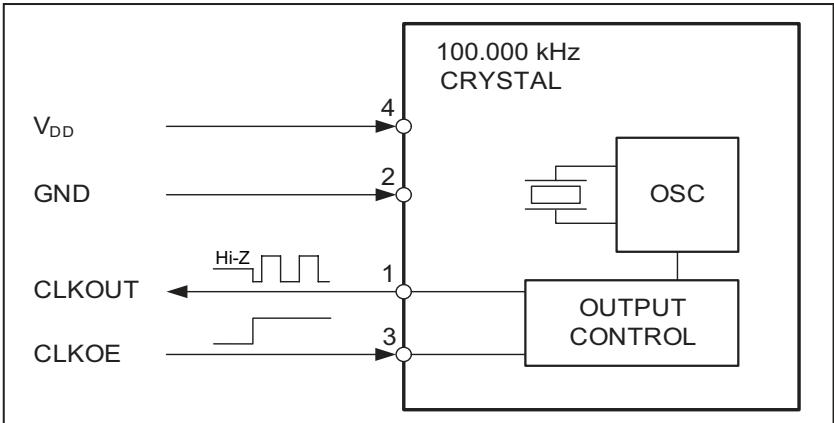
### DESCRIPTION

The OM-0100-C8 is a Low Frequency SMT Oscillator that incorporates an integrated CMOS circuit together with an XTAL. It operates under vacuum in a hermetically sealed ceramic package with metal lid.

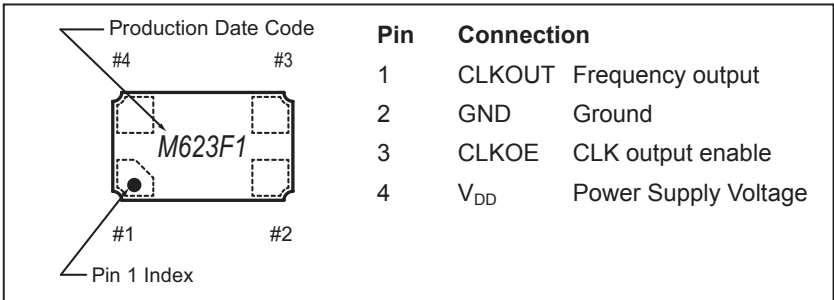
### FEATURES

- Wide supply voltage range.
- Very low power consumption.
- CLKOUT enable/disable.
- Small size, low profile, lightweight (5.1 mg).
- High shock and vibration resistant.
- 100% Pb-free, RoHS-compliant.
- Automotive qualification according to AEC-Q200 available.

### BLOCK DIAGRAM



### PIN CONNECTIONS TOP VIEW



## ELECTRICAL CHARACTERISTICS AT 25°C

More detailed information can be found in the Application Manual.

Output Frequency	F	100.000	kHz
Frequency tolerance	<sup>1)</sup> $\Delta F/F$	±100	ppm
Supply voltage	V <sub>DD</sub>	1.6 – 5.5	V
Current consumption (typ./max.)	<sup>2)</sup> I <sub>DD</sub>	0.55 / 0.75	µA
Duty cycle (min./max.)		40 / 60	%
Start up time (max.)	t <sub>start</sub>	0.5	s
Voltage coefficient (max.)		±3	ppm/V
Aging first year max. @ 25°C	$\Delta F/F$	±3	ppm
Turnover temperature (typ.)	T <sub>0</sub>	28 ±5	°C
Frequency vs. temperature	$\Delta F/F_0$	-0.035 ppm/°C <sup>2</sup> (T - T <sub>0</sub> ) <sup>2</sup> ±10%	ppm

1) Tighter tolerances on request.

2) V<sub>DD</sub> = 3.0 V, CLKOE = LOW.

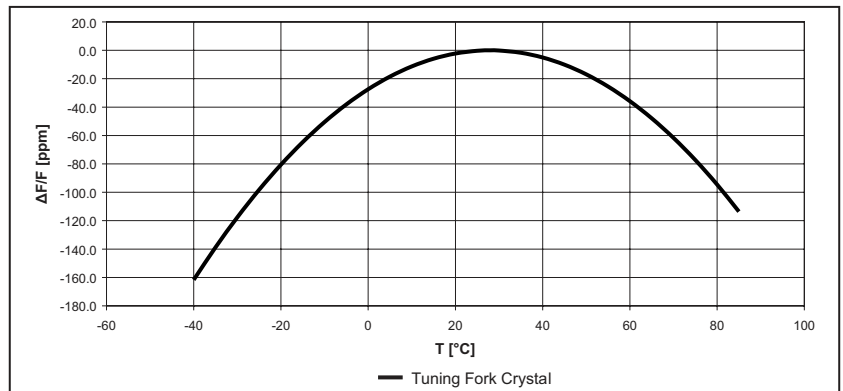
## ENVIRONMENTAL CHARACTERISTICS

		Conditions	Max. Dev.
Storage temp. range		-55 to +125°C	
TA Operating temperature range		-40 to +85°C	
Shock resistance	$\Delta F/F$	5000 g, 0.3 ms, ½ sine	±5 ppm
Vibration resistance	$\Delta F/F$	20 g / 10–2000 Hz	±5 ppm

## TERMINATIONS AND PROCESSING

Type	Termination	Processing
OM-0100-C8	Au flashed pads	IPC/JEDEC J-STD-020C 260°C / 20 - 40 s

## FREQUENCY TEMPERATURE CHARACTERISTICS



## ORDERING INFORMATION

**OM - 0100 - C8 ±20 ppm TA QC**

**Oscillator**  
**Metal lid**  
**Frequency**  
**0100** = 100.000 kHz  
**Package size**  
**C8** = 2.0 x 1.2 x 0.70 mm

**Qualification**  
**QC** = Commercial Grade (Standard)  
**QA** = Automotive Grade AEC-Q200

**Temperature range**  
**TA** = -40 to +85°C (Standard)

**Frequency tolerance**

A unique part number will be generated for each product specification, i.e:	
20xxxx-MC01	1'000 pcs (in 8 mm tape on 7" reel)
20xxxx-MC03	3'000 pcs (in 8 mm tape on 7" reel)

All specifications subject to change without notice.



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