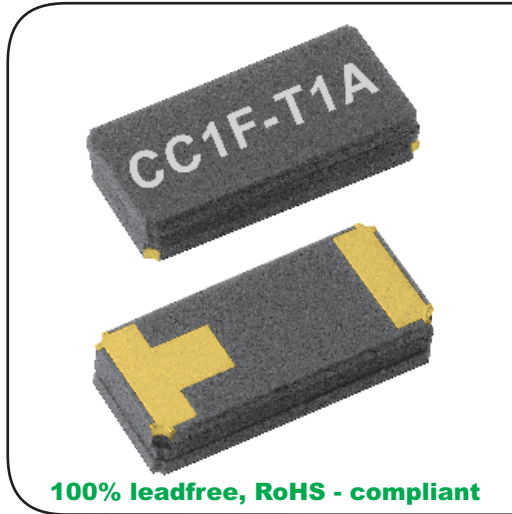
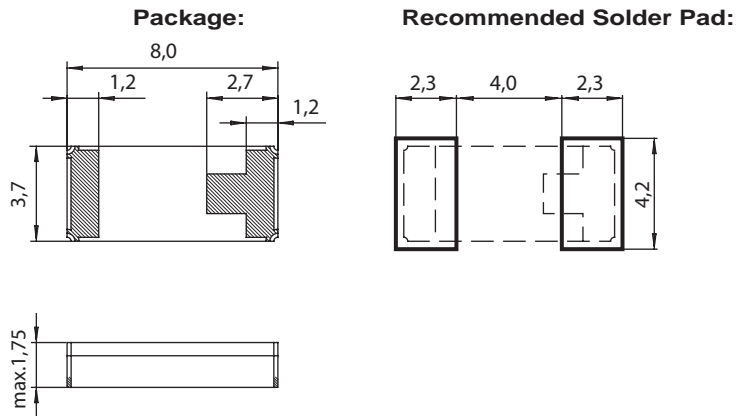


CC1F-T1A

Inverted Mesa AT Crystal 30 MHz – 250 MHz



DIMENSIONS



All dimensions in mm typical

Small SMT ceramic package
 Package height 1.75 mm
 Fundamental mode frequencies
 SMD-package in Tape and Reel
 Ind. and Ext. temperature ranges
 High stability
 Low aging
 High shock and vibration resistance

DESCRIPTION:

This SMD ceramic package has been specially designed for small industrial, telecom and VCXO applications. All frequencies are generated in fundamental mode.

The crystals are supplied in special trays (100 crystals per tray).

For pick-and-place equipment, the parts are available in 16 mm tapes:

7" (178 mm) reel with 1'000 crystals

13" (330 mm) reel with 4'000 crystals

ELECTRICAL CHARACTERISTICS AT 25°C:

Frequency Range	F_L	30-250	MHz
Load capacitance ¹⁾	C_L	10.0 / ∞	pF
Frequency tolerance at 25°C ²⁾	$\Delta F/F$	+/-50	ppm
Frequency versus temperature -40°C to +85°C	$\Delta F/F_0$	+/-30	ppm
Drive level max.	P	100	μ W
Insulation resistance min.	R_i	500	M Ω
Aging first year max.	$\Delta F/F$	+/-3	ppm

Frequency Example ³⁾	F_L	50.000	155.520	MHz
Series resistance typ./max.	R_S	15 / 50	15 / 35	Ω
Motional capacitance typ.	C_1	5.6	5.6	fF
Static capacitance typ.	C_0	2.0	2.9	pF

1) Other load capacitances on request.

2) Tighter and wider frequency tolerances on request.

3) Values for other frequencies consult factory.

STANDARD FREQUENCIES:

Frequency MHz					
50.0000	77.7600	100.0000	106.2500	125.0000	155.5200
166.6286	200.0000	207.3600	212.5000	250.0000	
Other frequencies between 30 MHz and 250 MHz on request					

**ENVIRONMENTAL
CHARACTERISTICS:**

		Conditions	Max. Dev.
Storage temp. range		-55 to +125°C	
TB Operating temperature range		-40 to +85°C	
TC Extended oper. temp. range		-55 to +125°C	
Shock resistance	ΔF/F	5000 g, 0.3 ms, ½ sine	+/-5 ppm
Vibration resistance	ΔF/F	20 g / 10–2000 Hz	+/-5 ppm

**TERMINATIONS AND
PROCESSING:**

Type	Termination	Processing
CC1F-T1A	For SMD mounting Au plated pads	Reflow soldering 260°C / 20 s max.

**PRODUCT DESCRIPTION AND
ORDERING INFORMATION:**

CC1F-T1A 155.520 MHz ∞ pF +/-50ppm TB QI

Frequency F_0
155.520 MHz

C_L Load Capacitance
10.0 pF
∞ pF

Frequency tolerance
+/- 50 ppm
+/- 100 ppm

Temperature Range
TB = -40 to 85°C (Standard)
TC = -55 to +125°C

Optional:
if not defined,
'Standard' will apply

Qualification
QI = Industrial (Standard)
QS = Custom Specification

A unique part number will be generated for each product specification, i.e:
 20xxxx-ML01 1'000 pcs (in 16mm tape on 7" reel)
 20xxxx-PL04 4'000 pcs (in 16mm tape on 13" reel)
 20xxxx-DA00 xxx pcs (in foam tray)
 Please contact us.

All specifications subject to change without notice.



Micro Crystal AG
Mühlestrasse 14
CH-2540 Grenchen
Switzerland

Tel. +41 32 655 82 82
Fax +41 32 655 82 83
sales@microcrystal.com
www.microcrystal.com