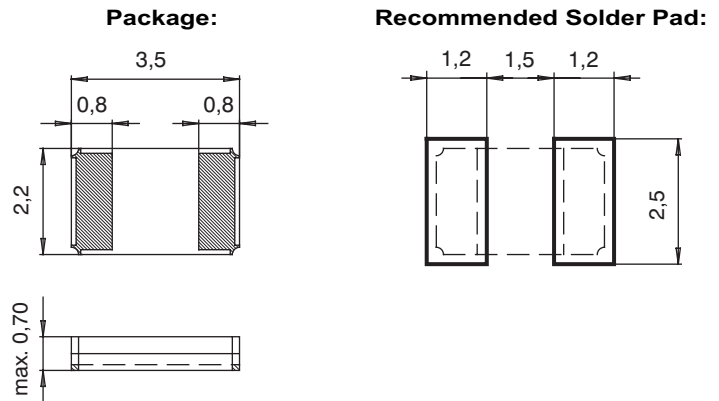


CC6F-T1A

Inverted Mesa AT Crystal 30 MHz – 250 MHz



DIMENSIONS



All dimensions in mm typical

Miniature ceramic package
Package height 0.70 mm max.
Fundamental mode frequencies
SMD-package in Tape and Reel
Industrial and MIL temp. ranges
High stability
Low aging
High shock and vibration resistance

The CC6F-T1A is a completely leadfree product.

DESCRIPTION:

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

The crystals are supplied in special trays (200 crystals per tray).

For pick-and-place equipment, the parts are available in 12 mm tape:

7" (178 mm) reel with 3'000 crystals

10" (254 mm) reel with 7'000 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	μW
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	50 / 100	15 / 35	Ω
Motional capacitance typ.	C_1	2.7	5.6	fF
Static capacitance typ.	C_0	2.4	2.9	pF
Quality factor min.	Q	11'000	5'000	

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					

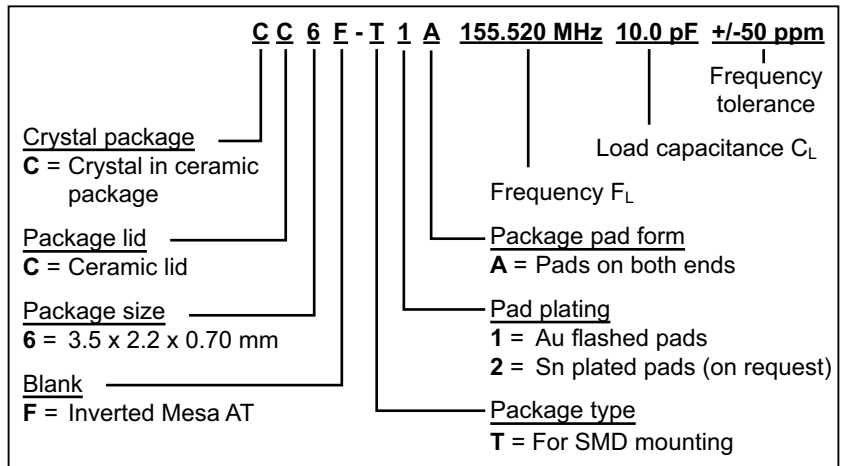
**ENVIRONMENTAL
CHARACTERISTICS:**

		Conditions	Max. Dev.
Storage temp. range		-55 to +125°C	
Industrial operating temp. range		-40 to +85°C	
Military operating temp. range		-55 to +125°C	
Shock resistance	ΔF/F	5000 g, 0.3 ms, 1/2 sine	+/-5 ppm
Vibration resistance	ΔF/F	20 g / 10-2000 Hz	+/-5 ppm

**TERMINATIONS AND
PROCESSING:**

Type	Termination	Processing
CC6F-T1A	For SMD mounting Au flashed pads	Reflow soldering 260°C/20 s max.
CC6F-T2A (on request)	For SMD mounting Sn plated pads	Reflow soldering 260°C/20 s max.

**PART NUMBER/
ORDERING INFORMATION
EXAMPLE:**



All specifications subject to change without notice. 07.03



A COMPANY OF THE **SWATCH GROUP**

Headquarters:

Micro Crystal
Div. of ETA SA
Mühlestrasse 14
CH-2540 Grenchen
Switzerland
Tel. +41 32 655 82 82
Fax +41 32 655 82 83
sales@microcrystal.ch
www.microcrystal.ch

North American Sales Office:

Micro Crystal
A Div. of The Swatch Group (U.S.) Inc.
601 Campus Drive, Suite B4
Arlington Heights, IL 60004
USA
Tel. +1 847 818 9825
Fax +1 847 818 9915
sales@microcrystal.com
www.microcrystal.com