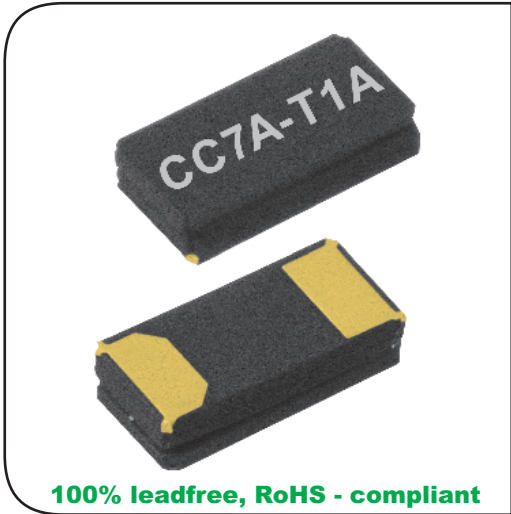
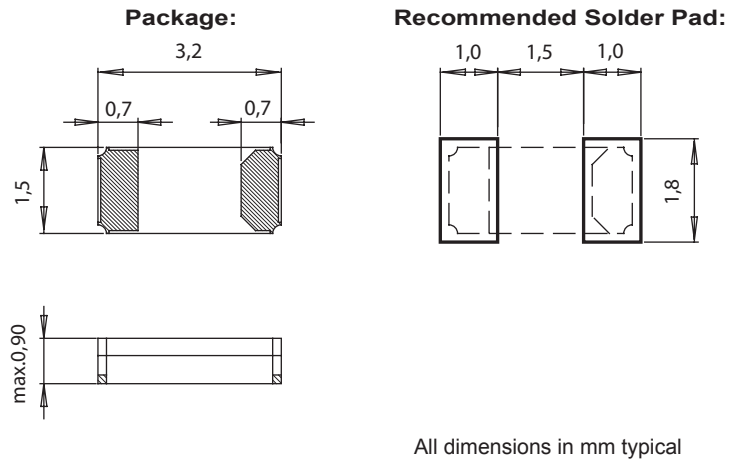


CC7A-T1A

AT Crystal 24 MHz – 50 MHz



DIMENSIONS



Suitable for implantable medical applications
Small SMT ceramic package
Package height 0.9 mm
Fundamental mode frequencies
SMD-package in Tape and Reel
Ind. and Ext. temperature ranges
High stability, low ageing
High shock and vibration resistance

DESCRIPTION:

This SMD ceramic package has been specially designed for small, implantable medical, industrial, telecom and electronic 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 tapes:
 7" (178 mm) reel with 1'000 crystals
 7" (178 mm) reel with 3'000 crystals
 13" (330 mm) reel with 14'000 crystals

ELECTRICAL CHARACTERISTICS AT 25°C:

Frequency Range	F_L	24 – 30	MHz
Load capacitance ¹⁾	C_L	3.0 / 9.0 / 16.0	pF
Frequency tolerance at 25°C ²⁾	$\Delta F/F$	+/-50	ppm
Frequency versus temperature ³⁾ TB: -40 to + 85°C TC: -55 to +125°C	$\Delta F/F_0$	+/-50 +/-100	ppm
Drive level typ/max	P	100/250	μW
Insulation resistance min.	R_i	500	MΩ
Ageing first year max.	$\Delta F/F$	+/-3	ppm

- 1) Other load capacitances on request; e.g. C_L : 20 pF
 2) Tighter and wider frequency tolerances on request; e.g. +/-20 ppm
 3) Tighter thermal stability on request; e.g. +/-10 ppm from 0°C to +55°C

Frequency [MHz]	R_s [Ω] typ/max	C_1 [fF] typ/max	C_0 [pF] typ
24 to < 30	60 / 100	1 / 3	0.7

STANDARD FREQUENCIES:

Frequency MHz					
24.0000	25.0000	26.0000	26.5000	32.0000	40.0000
Other frequencies between 24 MHz and 50 MHz on request					

**ENVIRONMENTAL
CHARACTERISTICS:**

		Conditions	Max. Dev. [ppm]
Storage temp. range		-55 to +125°C	
TB Operating temperature range		-40 to +85°C	
TC Extended operating temp. range		-55 to +125°C	
Shock resistance	$\Delta F/F$	5000 g, 0.3 ms, 1/2 sine	+/-5
Vibration resistance	$\Delta F/F$	20 g / 10–2000 Hz	+/-5

**TERMINATIONS AND
PROCESSING:**

Type	Termination	Processing
CC7A-T1A	For SMD mounting Au plated pads	Reflow soldering 260°C / 20 s max.
CC7A-T3A	For SMD mounting Sn/Ag/Cu plated	Reflow soldering 260°C / 20 s max.

**PRODUCT DESCRIPTION AND
ORDERING INFORMATION:**

CC7A-T1A 26.0 MHz 9.0 pF +/-50ppm TB QI

Frequency F_0 _____

C_L Load Capacitance
 3.0 pF
9.0 pF
 16.0 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)
QM = Medical
QS = Custom Specification

A unique part number will be generated for each product specification, i.e:

20xxxx-MG01	1'000 pcs (in 12mm tape on 7" reel)
20xxxx-MG03	3'000 pcs (in 12mm tape on 7" reel)
20xxxx-PG14	14'000 pcs (in 12mm tape on 13" reel)
20xxxx-EA00	xxx pcs (in plastic tray)

Please contact us.

All specifications subject to change without notice.



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