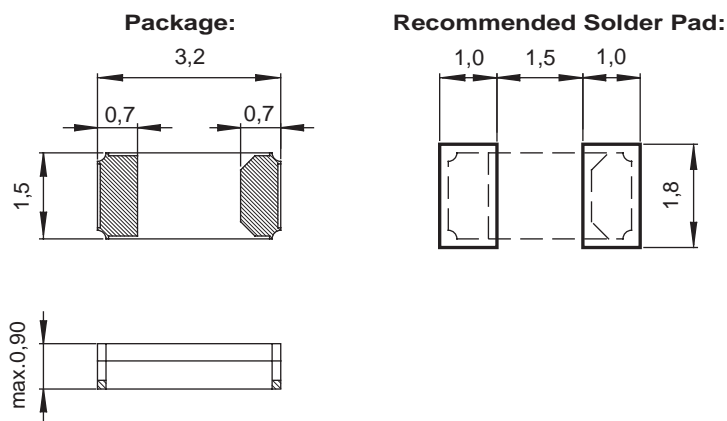


CC7A-T1A

AT Crystal 24 MHz – 50 MHz



DIMENSIONS



All dimensions in mm typical

Ultra miniature suitable for implantable medical application
SMT ceramic package package height 0.9 mm add 0.75mm on request
Fundamental mode up to 50MHz
Ind. and Ext. temperature ranges
High stability and low aging
High shock and vibration resistance
Hermetically sealed
Ultra low MSL
Excellent solderability
Swiss made quality
Customer specification on request

DESCRIPTION:

This quartz Crystal in SMD ceramic package has been specially designed with Micro Crystal photolithographic process for surface mount using infrared, vapor phase or epoxy techniques

APPLICATIONS:

- Implantable medical devices (Pacemakers, Defibrillators, Pumps)
- Optical network
- Satellite communications
- Airborne equipments
- Telemetry

The crystals are supplied in trays (288 crystals per tray).
 For pick-and-place equipment, the parts are available in 12mm tapes:
 7" with 1'000 crystals
 7" with 3'000 crystals

ELECTRICAL CHARACTERISTICS AT 25°C:

Frequency Range	F_L	24 – 50	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
Aging 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]	$R_s[\Omega]$ typ/max	C_1 [fF] typ/max	C_0 [pF] typ
24 to < 50	60 / 100	1 / 3	0.7

STANDARD FREQUENCIES:

Frequency MHz					
24.0000	25.0000	26.0000	26.5000	27.0000	40.0000
Other frequencies from 24 MHz up to 50 MHz on request					

**ENVIRONMENTAL
CHARACTERISTICS:**

	Conditions
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	5000 g, 0.3 ms, ½ sine
Vibration resistance	20 g / 10–2000 Hz

**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 9.0pF +/-50ppm TB QI

Frequency F_L _____

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-EA00 .xxx pcs (in plastic tray)

Please contact us.

All specifications subject to change without notice.