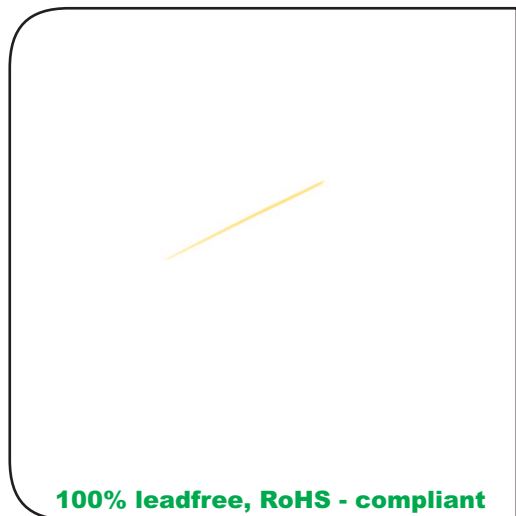
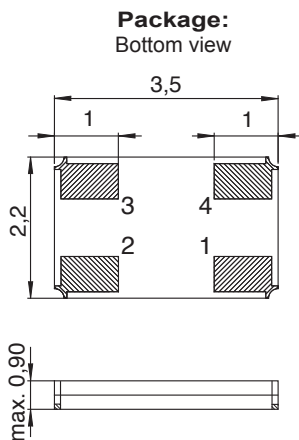


CC6A-T1A

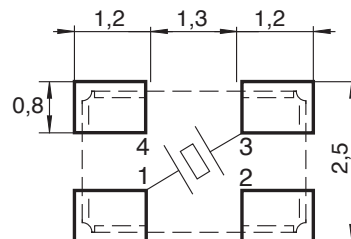
AT Crystal 16 MHz – 70 MHz



DIMENSIONS



Recommended Solder Pad:



pin 2 NC
pin 4 NC
pin 1/3 Quartz crystal

All dimensions in mm typical

SMT ceramic package height 0.9mm
Fundamental mode up to 70MHz
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:

- Avionics
- Radio transceiver
- Satellite communications
- Airborne equipments

The crystals are supplied in trays (208 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	16 – 70	MHz
Load capacitance ¹⁾	C_L	20.0	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.

2) Tighter and wider frequency tolerances on request.

3) Tighter thermal stability on request.

Frequency [MHz]	$R_s[\Omega]$ typ / max	C_1 [fF] typ / max	C_o [pF] typ
16 to < 20	60 / 120	2 / 4	1.5
20 to < 24	40 / 85	3 / 5	2
24 to < 40	30 / 50	4 / 6	2.5
40 to < 70	20 / 40	5 / 8	3

STANDARD FREQUENCIES:

Frequency MHz						
16.0000	20.0000	40.0000				
Other frequencies from 16 MHz up to 70 MHz on request						

ENVIRONMENTAL CHARACTERISTICS:

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

TERMINATIONS AND PROCESSING:

Type	Termination	Processing
CC6A-T1A	For SMD mounting Au plated pads	Reflow soldering +260°C / 20 s max.
CC6A-T3A	For SMD mounting Sn/Ag/Cu plated	Reflow soldering +260°C / 20 s max.

PRODUCT DESCRIPTION AND ORDERING INFORMATION:

CC6A–T1A 24.0 MHz 20.0pF +/-50ppm TB QI						
<u>Frequency F_L</u>						
<u>C_L Load Capacitance</u>						
16.0 pF						
20.0 pF						
<u>Frequency tolerance</u>						
+/- 50 ppm						
+/- 100 ppm						
<u>Temperature Range</u>						
TB = -40 to +85°C (Standard)						
TC = -55 to +125°C						
<u>Optional:</u> if not defined, 'Standard' will apply						
<u>Qualification</u>						
QI = Industrial (Standard)						
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-MG00					2'000 pcs	(in 12mm tape on 7" reel)
20xxxx-EA00					xxx pcs	(in ESD plastic tray)
Please contact us.						

All specifications subject to change without notice.



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