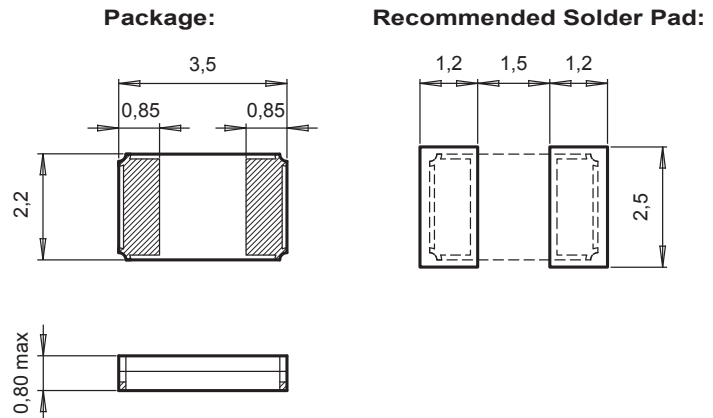


DIMENSIONS



All dimensions in mm typical

APPLICATIONS

Filters
Optical Network
Radio Communications

DESCRIPTION

The CC6F-T1AF is a high frequency SMT Quartz Crystal Unit that incorporates an Inverted Mesa AT-cut Resonator. It operates under vacuum in a hermetically sealed ceramic package with ceramic lid.

FEATURES

Outstanding hermetic sealing with gold-tin preform.
High stability and low aging guaranteed by hermetic sealing.
Available for extended operating temperature range.
Operates in fundamental mode.
High shock and vibration resistant.
100% Pb-free, RoHS-compliant.

ELECTRICAL CHARACTERISTICS AT 25°C

Frequency Range	F_L	70 – 200	MHz
Load capacitance ¹⁾	C_L	10.0 / ∞	pF
Frequency tolerance at +25°C ²⁾	$\Delta F/F$	± 20	ppm
Frequency vs. temperature ³⁾ TA: -40 to +85°C TB: -40 to +125°C TC: -55 to +125°C	$\Delta F/F_0$	± 20 ± 40 ± 50	ppm
Drive level typ./max.	P	50 / 100	μW
Insulation resistance min.	R_i	500	M Ω
Aging first year max.	$\Delta F/F$	± 3	ppm
Spurious suppression		<-15	dB
Frequency spurious range		≤ 1	MHz

1) Other load capacitances on request; e.g. C_L : 7,0 pF.

2) Tighter frequency tolerances on request; e.g. ± 10 ppm.

3) Tighter thermal stability on request; e.g. ± 10 ppm from 0°C to +55°C.

4) Other parameters on request.

Standard Frequencies	F_L	70.000	124.782	MHz
Series resistance typ./max.	R_s	35 / 45	35 / 45	Ω
Motional capacitance typ.	C_1	3	3	fF
Static capacitance typ.	C_0	2.4	2.5	pF

STANDARD FREQUENCIES

Frequencies	
70.000 MHz	124.782 MHz
Other frequencies on request	

ENVIRONMENTAL CHARACTERISTICS

	Conditions
Storage temp. range	-55 to +125°C
TA Operating temperature range	-40 to +85°C
TB Extended operating temp. range	-40 to +125°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
CC6F-T1AF	Au flashed pads	IPC/JEDEC J-STD-020C 260°C / 20 - 40 s

ORDERING INFORMATION

	C	6	F	-	T	1	A	F	70.000 MHz	∞ pF	±20 ppm	TA	QI	
Ceramic package														
Ceramic lid														
Package size 6 = 3.5 x 2.2 x 0.80 mm														
AT-cut inverted mesa														
SMT package														
Au flashed pads														
Pads on both ends														
Filter applications														
	Frequency F_L			Load capacitance C_L			Frequency tolerance			Temperature range			Qualification	
	10.0 pF			∞ pF			±20 ppm			TA = -40 to +85°C (Standard)			QI = Industrial Grade (Standard)	
	Other C_L on request			Tighter freq. tolerances on request			TC = -55 to +125°C			QS = Custom Specification				

A unique part number will be generated for each product specification, i.e:	
20xxxx-MG01	1'000 pcs (in 12 mm tape on 7" reel)
20xxxx-MG03	3'000 pcs (in 12 mm tape on 7" reel)
20xxxx-EA00	xxx pcs (in ESD plastic tray)

All specifications subject to change without notice.



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