

The ECS-CTP Series SMD ceramic resonator includes built in capacitors for reduced component count. The SMD Ceramic resonator is a low cost frequency control solution when absolute frequency accuracy is not important.

Request a Sample



- 6.0 x 3.0 mm package
- Industry Standard footprint
- Extended Temp. Range
- Built-in Caps

DIMENSIONS (mm)

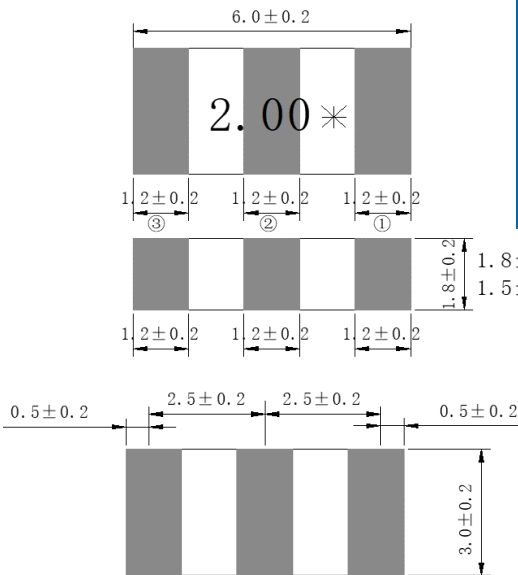


Figure 1) Top, Side, and Bottom views

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-CTP			UNITS
		MIN	TYP	MAX	
Frequency		1.84		12.00	MHz
Frequency Tolerance	@ +25°C			± 0.5	%
Frequency Stability Over -40 ~ +85°C	1.84 ~ 8.00 MHz			± 0.3	%
	8.01 ~ 12.00 MHz			± 0.2	%
Equivalent Series Resistance (ESR)	1.84 ~ 2.99 MHz			100	Ω
	3.0 ~ 3.49 MHz			50	Ω
	3.5 ~ 12.00 MHz			30	Ω
Built-In Capacitors * (±20% Tolerance)	1.84 ~ 8.00 MHz		30		pF
	8.01 ~ 12.0 MHz		15		pF
Withstanding Voltage	DC, 5 s Max.			100	V
	DC Voltage			6	V
Voltage Rating	AC Voltage			15	Vp-p
	Insulation Resistance	10V, 1 Min.	500		MΩ
Operating Temperature	T _{opr}	-40		+85	°C
Storage Temperature	T _{stg}	-55		+85	°C
Aging (First Year)	@ +25°C ±3°C			±0.1	%

PAD CONNECTIONS	
1	In/Out
2	Gnd
3	Out/In

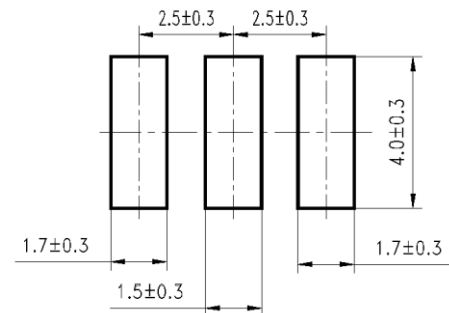


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-CTP-8.00-30-TR

ECS -CTP	FREQUENCY	Built In CAPACITANCE	PACKAGING
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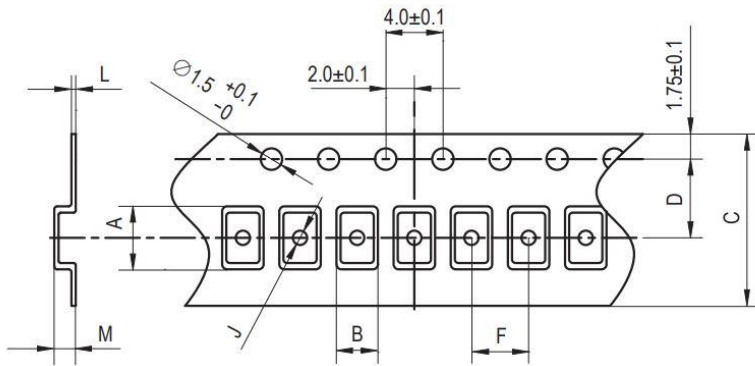
8.00 = 8.000 MHz
*See Developed Frequencies Pg. 2

Standard
30 = 30 pF
10 = 10 pF
15 = 15 pF
22 = 22 pF
33 = 33 pF
39 = 39 pF

TR =
Tape & Reel
4K/Reel

*Contact ECS for availability of non-developed frequencies/non standard cap values.

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
6.4	3.4	16.0	7.5	8.0	1.6	0.3	2.1	330 mm	4000

SOLDER PROFILE
Peak solder Temp +260°C Max 10 sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au

DEVELOPED FREQUENCIES
2.00 MHz
3.58 MHz
3.68 MHz
4.00 MHz
4.19 MHz
8.00 MHz

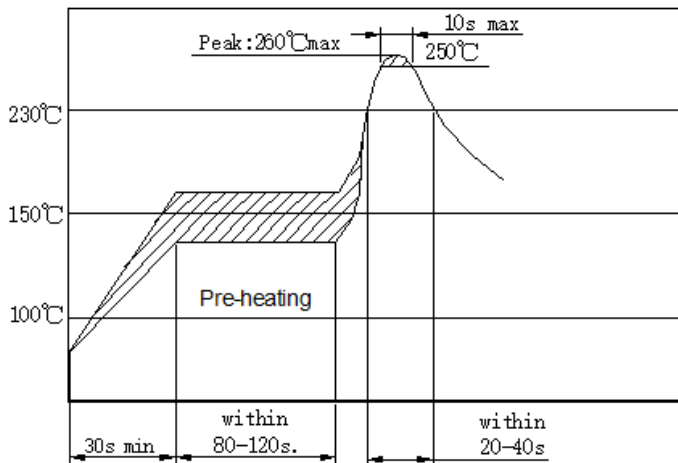


Figure3) Suggested Reflow Profile

ECS-CTP SMD Ceramic Resonator

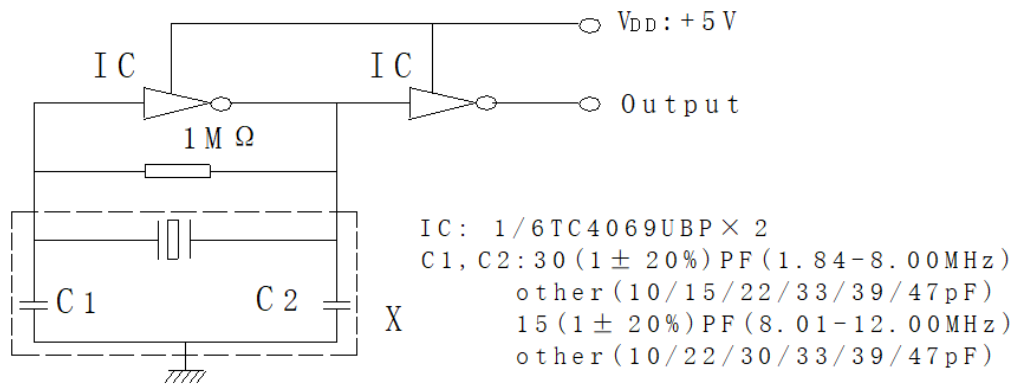


Figure4) Test Circuit

Note: ECS does not approve the use of its products in Automotive, Military, Avionics, Life Sustaining or Life Support systems or any other related medical applications without written approval from ECS Inc.