

ECS-CTP SMD Ceramic Resonator

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

ECS-CTP SMD RESONATOR



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

DIMENSIONS (mm)

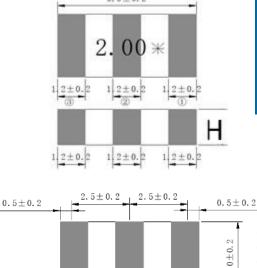


Figure 1) Top, Side, and Bottom views

PARAMETERS	CONDITIONS	ECS-CTP			UNITS
		MIN	ТҮР	MAX	
Frequency		1.84		20.00	MHz
Frequency Tolerance	@ +25°C			± 0.5	%
Free and an a Charle little	1.84 ~ 8.00 MHz			± 0.3	%
Frequency Stability Over -40 ~ +85°C	8.01 ~ 12.00 MHz			± 0.2	%
	12.1 ~ 20.00 MHz			±0.3	%
	1.84 ~ 2.99 MHz			100	Ω
Equivalent Series	3.0 ~ 3.49 MHz			50	Ω
Resistance (ESR)	3.5 ~ 12.00 MHz			30	Ω
	12.1 ~ 20.0 MHz			60	Ω
Withstanding Voltage	standing Voltage DC, 5 s Max.			100	V
Valtage Deting	DC Voltage			6	V
Voltage Rating	AC Voltage			15	Vp-p
Insulation Resistance	10V, 1 Min.	500			MΩ
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-55		+85	°C
Aging (First Year)	@ +25°C ±3°C			±0.1	%

Height 1.8 ±0.2 (1.84~3.5 MHz) 1.5 ±0.2 (3.51 ~ 12 MHz) 1.6 ±0.2 (12.1 ~ 20 MHz

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

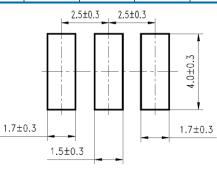


Figure 2) Suggested Land Pattern

Rev.2021

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

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ECS -CTP	FREQUENCY	Built In CAPACITANCE	PACKAGING
*Contact ECS for availability of non-developed frequencies/non standard cap values.	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

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

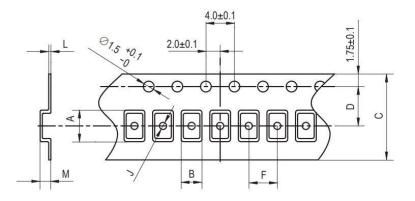
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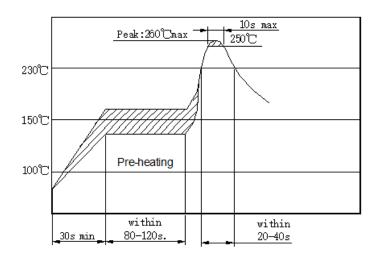


POCKET TAPE DIMENSIONS (mm)



А	В	С	D	F	J	L	М	Reel Dia.	Qty/Reel
<mark>6.4</mark>	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 Sn/Ag					



DEVLOPED FREQUENCIES
2.00 MHz
3.58 MHz
3.68 MHz
4.00 MHz
4.19 MHz
8.00 MHz
10.00 MHz
12.00 MHz
16.00 MHz
20.00 MHz

Figure3) Suggested Reflow Profile



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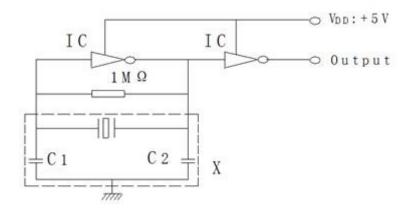


Figure4) Test Circuit

IC: 1/6TC4069UBP x 2

C1,C2: 30 (1±20%) pF (1.84 ~ 8.00 MHz) other (10/15/22/33/39/47 pF) 15(1±20%) pF (8.01~12 MHz) Other (10/22/30/33/39/47 pF) 10 (1±20%) pF (12.01 ~ 20 MHz)

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