ECS-CTE
SMD Ceramic Resonator

The ECS-CTE Series miniature 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-CTE SMD RESONATOR

- 3.2 x 1.3 mm package
- Industry Standard footprint
- Extended Temp. Range
- Built-in Caps

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-CTE			UNITS
		MIN	TYP	MAX	
Frequency		8.00		16.00	MHz
Frequency Tolerance	@ +25°C			± 0.5	%
Frequency Stability	-40 ~ +85°C			± 0.2	%
Equivalent Series Resistance (ESR)				40	Ω
Built-In Capacitors * (±20% Tolerance)	Specify in P/N		15		pF
Withstanding Voltage	DC, 1 Min			50	V
Voltage Rating	DC Voltage			6	V
	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 (10 Years)	@ +25°C ±3°C			±0.2	%

DIMENSIONS (mm)

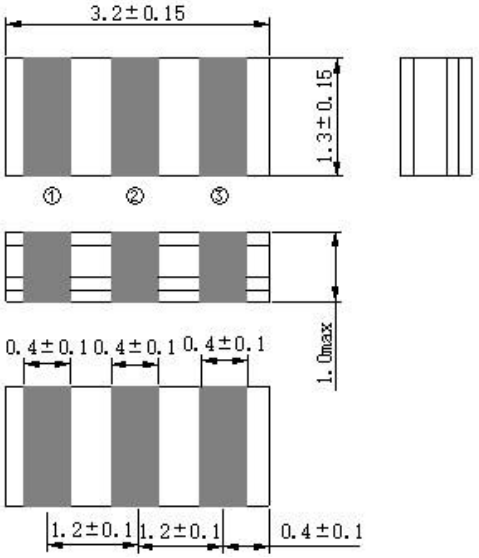

Figure 1) *Top, Side, and Bottom views*

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

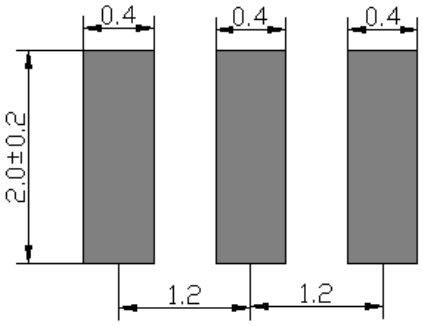

Figure 2) *Suggested Land Pattern*

PART NUMBERING GUIDE: Example ECS-CTE-10.00-15-TR

ECS -CTE	FREQUENCY	Built In CAPACITANCE	PACKAGING
	10.00 = 10.000 MHz *See Developed Frequencies Pg. 2	Standard 15 = 15 pF 10 = 10 pF 22 = 22 pF 30 = 30 pF 33 = 33 pF	TR = Tape & Reel 3K/Reel

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

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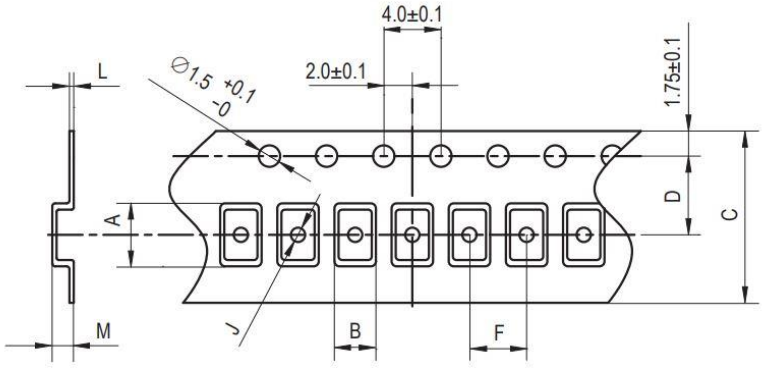
POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
3.4	1.5	8.0	3.5	4.0	1.1	0.25	1.3	180	3000

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

DEVLOPED FREQUENCIES
8.00 MHz
10.00 MHz
12.00MHz
16.00MHz

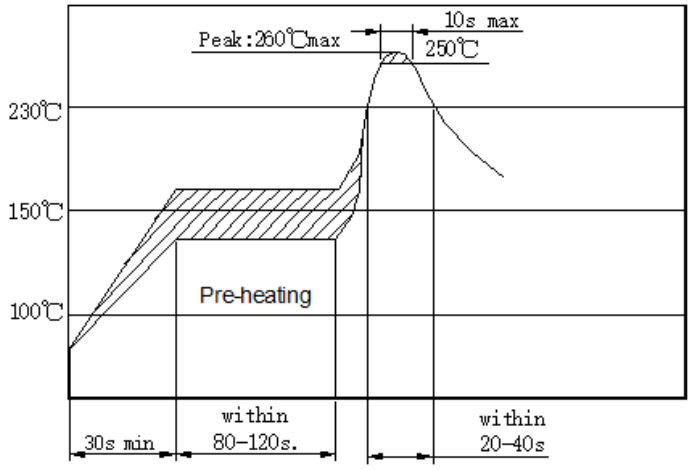


Figure3) *Suggested Reflow Profile*

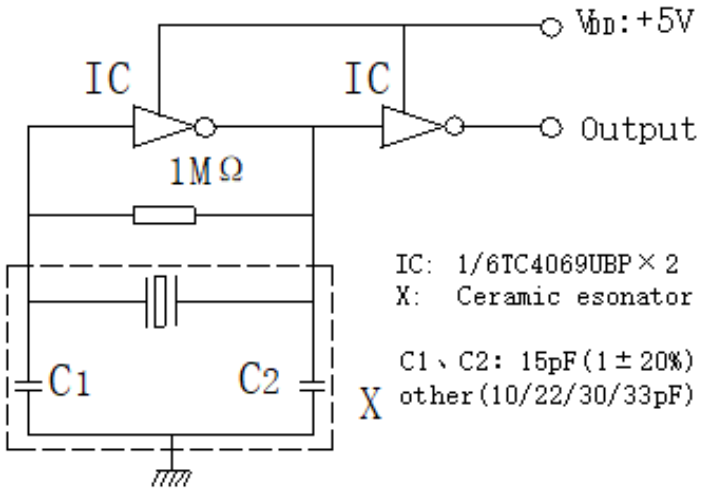


Figure4) *Test Circuit*

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.