

The CSM-7X is an excellent choice for a low cost SMD Crystal. The CSM-7X (5PX) has a case height of 4.3 mm Max. in a resistance weld metal package. Lower profile package height of 3.2 mm is available with the (5PLX) package.

CSM-7X SMD CRYSTAL

[Request a Sample](#)



CSM-7X SMD CRYSTAL



- Cost Effective
- Low Profile
- Industry Standard Footprint
- Pb Free/RoHS Compliant

DIMENSIONS (mm)

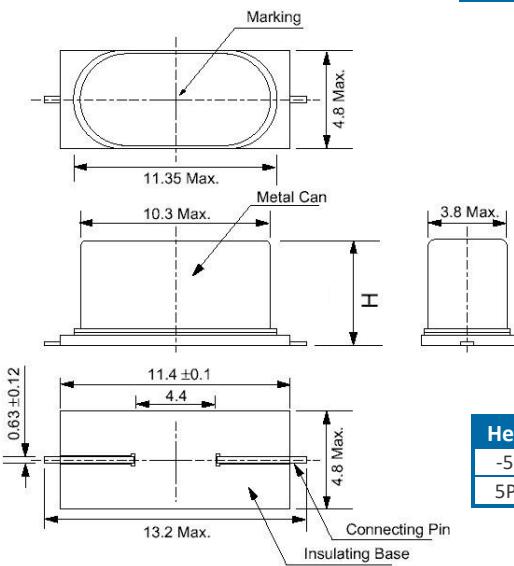


Figure 1) Top, Side, Bottom, and End

Crystal is symmetrical, pin 1 & 2 are interchangeable.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	CSM-7X			UNITS
		MIN	TYP	MAX	
Frequency		3.57		70.000	MHz
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	Standard -10 ~ +70°C			± 50	ppm
Shunt Capacitance	C ₀			7	pF
Load Capacitance	Specify in P/N	10	20	Series	pF
Drive Level	D _L			500	µW
Operating Temperature*	T _{opr}	-10		+70	°C
Storage Temperature	T _{stg}	-55		+125	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

EQUIVALENT SERIES RESISTANCE/MODE OF OSCILLATION

Frequency (MHz)	ESR Ω Max.	Mode of Osc.
3.57 ~ 4.999	150	Fundamental
5.000 ~ 5.999	80	Fundamental
6.000 ~ 6.999	70	Fundamental
7.000 ~ 8.999	60	Fundamental
9.000 ~ 12.999	50	Fundamental
13.000 ~ 19.999	40	Fundamental
20.000 ~ 40.000	30	Fundamental
40.000 ~ 70.000	80	3 rd Overtone

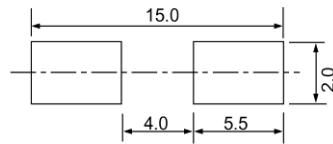


Figure 2) Suggested land

PART NUMBERING GUIDE: Example ECS-200-20-5PX-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS	PACKAGING
ECS	200 = 20.000 MHz See P/N Guide	20 = 20 pF 10 = 10 pF S = Series	5PX = 4.3 mm 5PLX = 3.2 mm	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm

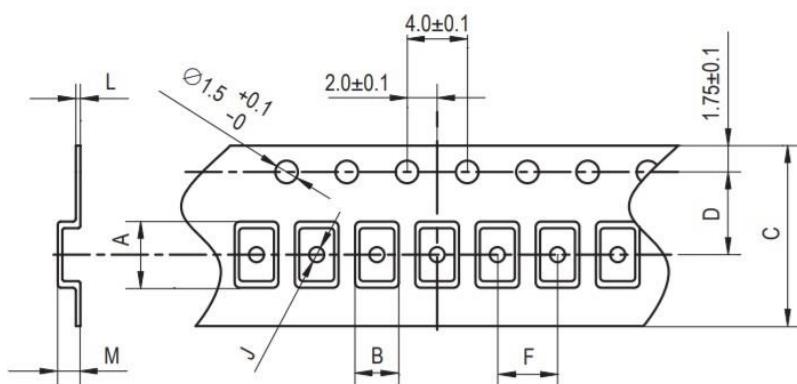
* Specify available options in P/N.

† Contact ECS for availability over extended temp range.

TR =
Tape
& Reel
1K/Reel

Rev.2020

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
15.4	5.3	24.0	11.5	12.0	1.7	0.4	4.4	300	1000pcs

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

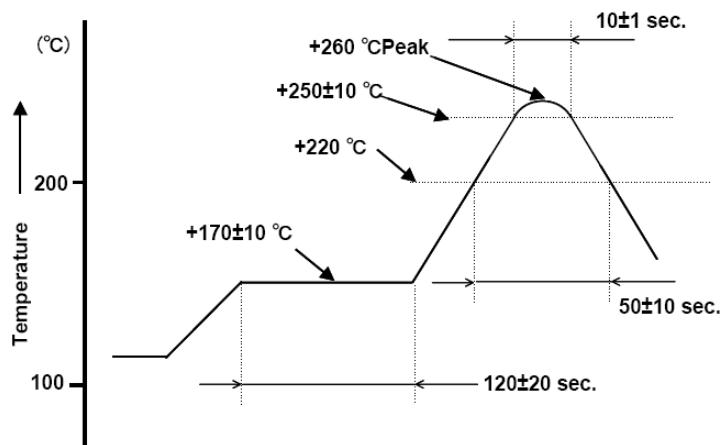


Figure 1) Suggested Reflow Profile

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ECS:

[ECS-122.8-18-5PLX-AGN-TR](#) [ECS-270-18-5PX-CEM-TR](#) [ECS-120-20-5PX-AEN-TR](#) [ECS-120-20-5PX-EN-TR](#) [ECS-200-18-5PX-DN-TR](#) [ECS-50-18-5PXDN-TR](#) [ECS-60-20-5PXDN-TR](#)