

- ▶ Case Ground
- ▶ Industry Std HC-49US SMD
- ▶ Extended Temp Range Option
- ▶ RoHS Compliant

CSM-7X-3L

SMD CRYSTAL

The CSM-7-3L is a low profile SMD Crystal with case ground. The 12.4 x 5.2 uses the industry standard HC-49US SMD base with a cased ground for RF applications.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	CSM-7X-3L			UNITS
		MIN	TYP	MAX	
Frequency	Fo	3.579545		70.000	MHz
Frequency Tolerance	@ +25°C			± 30 *	ppm
Frequency Stability (ref @ 25°C)	-10 ~ +70°C			± 50 *	ppm
Shunt Capacitance				7.0	pF
Load Capacitance	Specify in P/N		20		pF
Operating Temperature	T _{opr}	-10		+70	°C
Storage Temperature	T _{stg}	-40		+105	°C
Drive Level				500	µW
Aging Characteristics (Per Year)	@ +25°C ± 3°C			± 5	ppm

EQUIVALENT SERIES RESISTANCE

FREQUENCY RANGE (MHz)	MODE	Max. ESR	FREQUENCY RANGE (MHz)	MODE	Max. ESR
3.579545 ~ 4.999	Fundamental	150	13.000 ~ 19.999	Fundamental	40
5.000 ~ 5.999	Fundamental	80	20.000 ~ 29.999	Fundamental	30
6.000 ~ 6.999	Fundamental	70	26.000 ~ 39.999	3rd O/T	100
7.000 ~ 8.999	Fundamental	60	40.000 ~ 70.000	3rd O/T	80
9.000 ~ 12.999	Fundamental	50			

PACKAGE DIMENSIONS (mm)

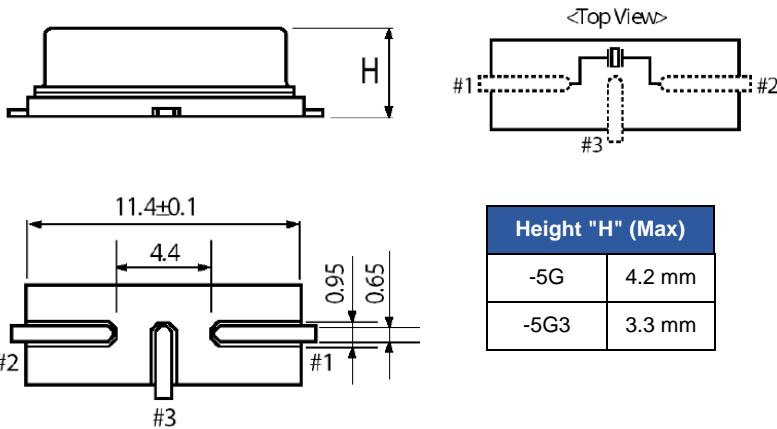


Figure 1) Side, Bottom and Xtal Connections

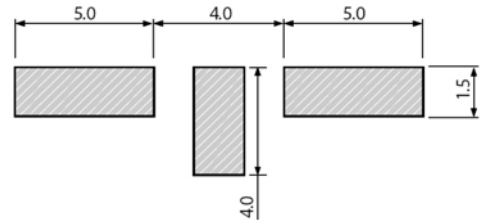
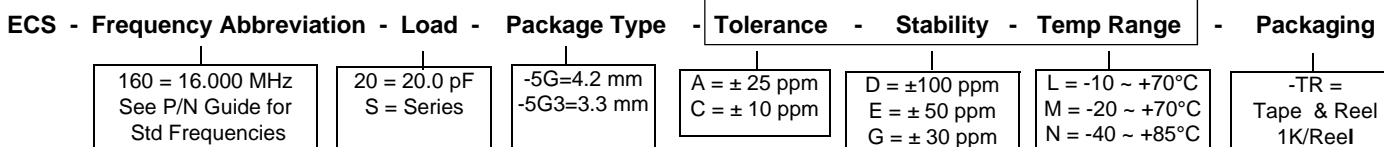


Figure 2) Bottom View and Suggested Land

PART NUMBERING GUIDE: Example ECS-160-20-5G-TR



* Tighter Tolerance/Stability Options Available (see custom options)
Not all stabilities are available at all temp ranges, consult ECS.