



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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- ▶ Low Profile
- ▶ 3.2 x 1.5 mm Footprint
- ▶ Extended Temp. Range
- ▶ RoHS Compliant



ECX-31B

SMD TUNING FORK CRYSTAL

The ultra-miniature ECX-31B is a very compact SMD Tuning Fork Crystal. The 3.2 x 1.5 x 0.9 mm ceramic package is ideal for today's SMD manufacturing environment.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-31B			UNITS
		MIN	TYP	MAX	
Frequency	Fo		32.768		KHz
Frequency Tolerance @ +25°C	Optional ±10 ppm, See P/N Guide			± 20	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL		0.1	1.0	μW
Equivalent Series Resistance	R1			70K	Ω
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.028	-0.034	-0.040	ppm/°C ²
Shunt Capacitance	Co		1.05		pF
First Year Aging	+25°C ±3°C			± 3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-55		+125	°C
Insulation Resistance	@ 100V DC	500M			Ω

TOP, BOTTOM, SIDE VIEWS & LAND PATTERN

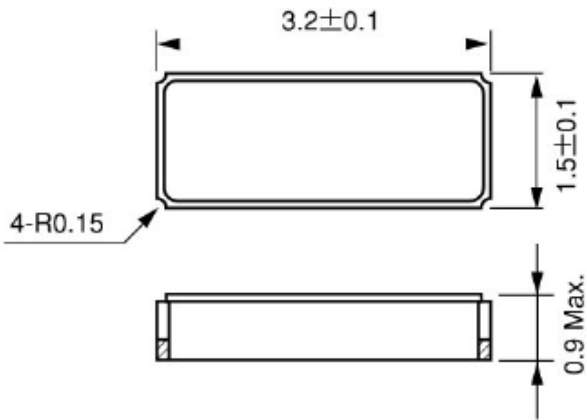


Figure 1) Top and Side View

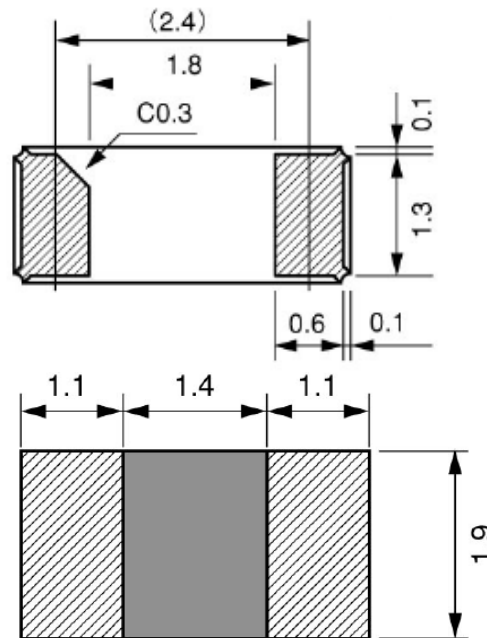


Figure 2) Bottom View and Suggested Land

PART NUMBERING GUIDE: Example ECS-.327-12.5-34B-TR

ECS - Frequency Abbreviation - Load Capacitance - Package Type - Tolerance - Packaging

