



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

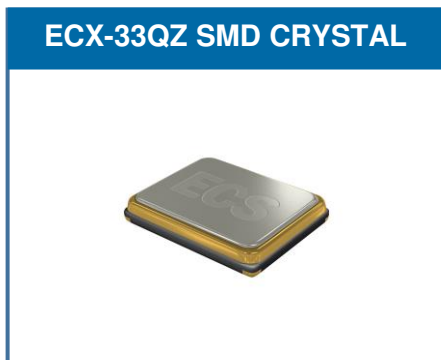
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



The ultra-miniature rugged ECX-33QZ compact SMD Crystal. The 3.2 x 2.5 x 0.8 mm ceramic package is ideal for harsh environments such as TPMS applications.

Request a Sample

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Profile
- 3.2 x 2.5 mm Footprint
- Extended Temp. Range
- AEC-Q200 Qualified
- Automotive/TPMS Applications

PARAMETERS	CONDITIONS	ECX-33QZ			UNITS
		MIN	TYP	MAX	
Frequency		13.000		26.000	MHz
Frequency Tolerance	@ +25°C (Standard)			± 15	ppm
Frequency Stability	-40 ~ +125°C (Standard)			± 50	ppm
Equivalent Series Resistance (ESR)	13 ~ 19.999 MHz			120	Ω
	20 ~ 26.000 MHz			80	Ω
Shunt Capacitance	Co			5	pF
Load Capacitance	Specify in P/N		10		pF
Drive Level	DL		10	100	μW
Operating Temperature	Topr	-40		+125	°C
Storage Temperature	Tstg	-40		+125	°C
Aging (First Year)	@ +25°C ±3°C			±3	ppm

DIMENSIONS (mm)

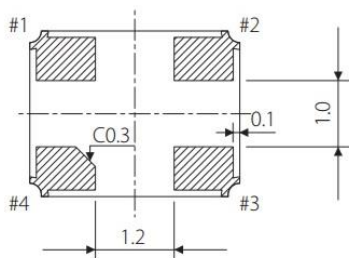
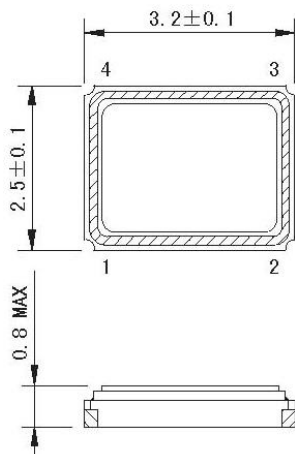


Figure 2) Suggested Land Pattern

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

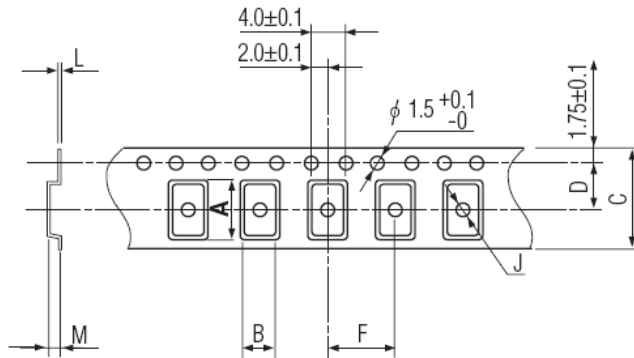
Figure 1) Top, Side, and Bottom views

PART NUMBERING GUIDE: Example ECS-260-10-33QZ-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	Tolerance Range	CUSTOM OPTIONS Stability	Temp	PACKAGING
ECS	260 = 26.000 MHz *See Developed Frequencies Pg. 2	33QZ = ECX-33QZ	Blank=Standard A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	Blank=Standard D = ± 100 ppm E = ± 50 ppm G = ± 30 ppm	Blank=Standard N = -40 ~ +85°C P = -40 ~ +105°C S = -40 ~ +125°C	TR = Tape & Reel 1K/Reel

*Contact ECS for availability of non-developed frequencies.

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
3.5	2.8	8.0	3.5	4.0	1.1	0.25	1.0	180	1000

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

DEVELOPED FREQUENCIES	
Abbreviation	Frequency (MHZ)
135.6	13.560
180.8	18.080
196.875	19.6875
260	260.000

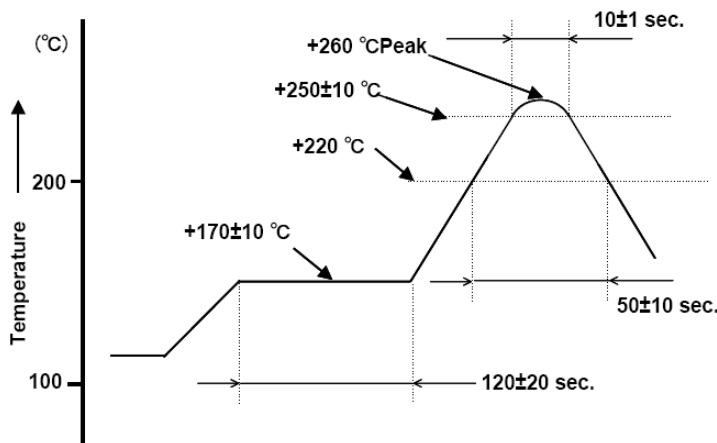


Figure 1) Suggested Reflow Profile