

EDCON-COMPONENTS



Features

Compact and thin 7,0x5,0x1,5mm (typ.)
 Exhibits excellent characteristics for many applications included the devices related to mobile bodies.
 Enables automatic mounting, due to the adoption of the emboss tapping packaging.

Applications

This is highly precise small-sized surface mounted crystal unit that can be widely used in communication equipment, AV equipment. OA equipment, cellular phone and measuring instruments.

Specifications

Frequency Range:	f ₀	8.000Mhz ~ 70,000Mhz	Please contact us for ranges in frequency
Frequency Tolerance:	Δ f/f ₀	.+/- 50ppm to +/- 10ppm	AT 25°C
Storage Temperatur Range:	T _{STG}	. -40°C to +85°C	
Load Capacitance:	C _L	20pf typ.	Please specify
Shunt Capacitance:	C ₀	5.0 pf Max.	
Drive Level:	DL	100μW Max.	
Insulation Resistance:	IR	500MΩ Min.	DC100V +/-15V
Aging (First Year)	Δf/f ₀	.+/- 5ppm Max.	25°C +/- 3°C
Sealing:		1x10 ⁻² μ Pa.m ³ /s Max.	
Shock Resistance:		. +/- 5ppm Max.	Conditions will vary depending on the frequency
Drop test of 3times on a hard board from 75cm height or shock test of 3000G x 0,3ms x 1/2sin wave x 3 directions			

Table 1 Frequency vs Temperature Characteristics

Frequency Stability vs Temperature Range (25°C +/-3°C)				
Temperature Range (°C)	Frequency Stability (PPM)			
	4 = +/-10	3 = +/-20	2 = +/-30	1 = +/-50
A= -0 to +50	√	√	√	√
B= -10 to +60	√	√	√	√
D= -20 to +70	√	√	√	√
F= -40 to +85		√	√	√

Equivalent Series Resistance (ESR R1)

Frequency Range (MHZ)	Equivalent series resistance (Ω Max.)	Mode
8,000 ~ 11,999	60	Fundamental / AT
12,000 ~ 13,999	50	
14,000 ~ 17,999	45	
18,000 ~ 31,999	40	
28,000 ~ 70,000	60	3rd Overtone

**SMD Quarz Crystal
7,0x5,0mm 4PAD**

Part No.: **O12023**

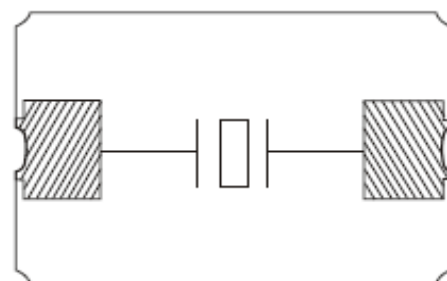
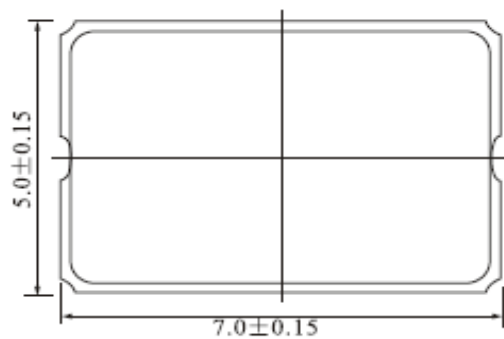
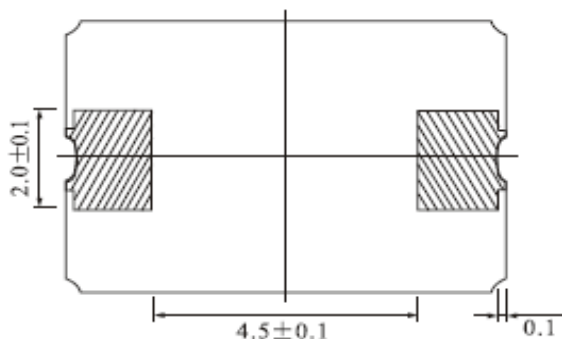
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APPD:	Victor			FINISH	Oliver		Sheet No.		1 from 4	

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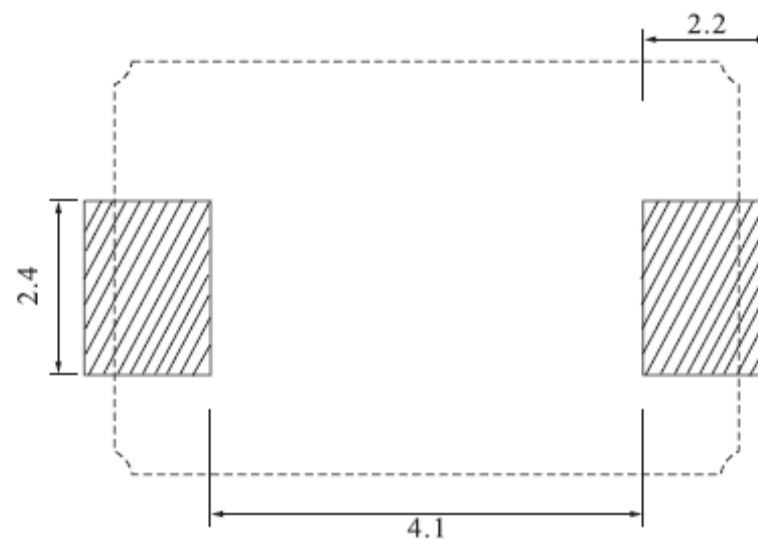


Technical Dimensions Dimensions (mm)

P.C.B. Layout



Electro Arrangement



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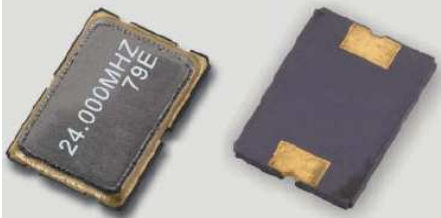
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www.edcon-components.com

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Ordering Informations

Serie	Frequency Range	Frequency Tolerance	Frequency Stabil. (ppM)	Temperature Range	Fundamental Mode	Load Capacitance	ROHS	Packing		
O12023	8M000000	B	1	B	1	C	R	TR102		

10 Letters (empty fill w. 0)	A= +/-50ppm	1= +/-50ppm	A= -0°C ~ +50°C	1= Fundamental	C= 12pf	R= ROHS Conform	TR102= Tape /Reel 1000PCS
	B= +/-30ppm	2= +/-30ppm	B= -10°C ~ +60°C	2= 3th Overtone	D= 16pf		
	C= +/-20ppm	3= +/-20ppm	D= -20°C ~ +70°C	3= 5th Overtone	E= 18pf		
	D= +/-10ppm	4= +/-10ppm	F= -40°C ~ +85°C		G= 20pf		
				H= 30pf			
					J= 32pf		
					K= 10pf		

BU101= Bulk Ware 100PCS

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Soldering Profile

Classification Reflow Profile (JEDEC J-STD-020C)



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