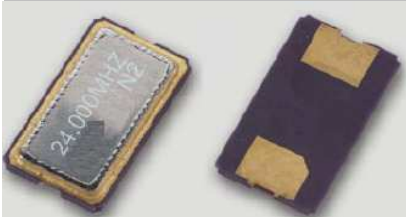


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Features

Compact and thin 6,0x3,5x1,2mm (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	7.600Mhz ~ 40,000Mhz	Please contact us for ranges in frequency
Frequency Tolerance:	Δ f/f ₀	.+/- 30ppm to +/- 100ppm	AT 25°C
Storage Temperature 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
7,600 ~ 11,999	80	Fundamental / AT
12,000 ~ 18,999	50	
19,000 ~ 20,999	30	
21,000 ~ 40,000	25	

**SMD Quarz Crystal
6,0x3,5mm 2PAD**

Part No.: **O12020**

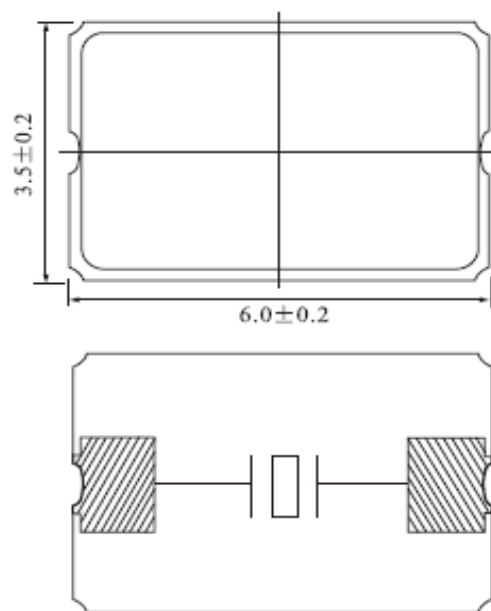
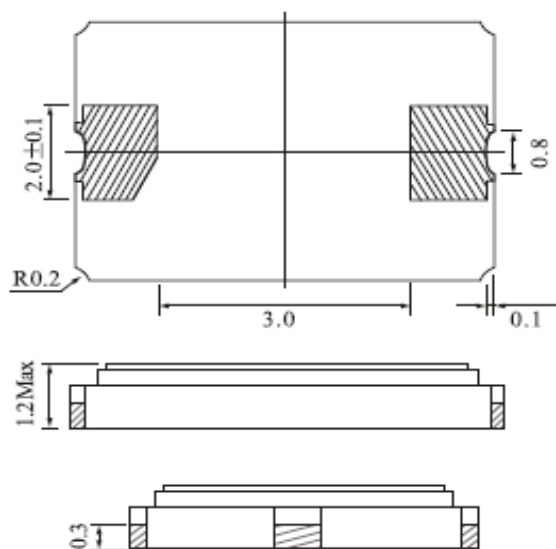
DRW:	Jose	CHKD	John	MATL:	Victoria	TOLERANCE	Mu Tao	DATE	13.07.2016	Customer:
APPD:	Victor			FINISH	Oliver		Sheet No.		1 from 4	

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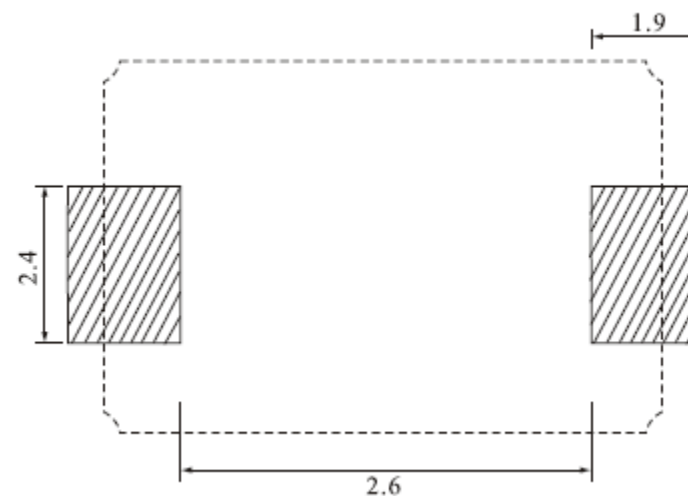


Technical Dimensions Dimensions (mm)

P.C.B. Layout



Electro Arrangement



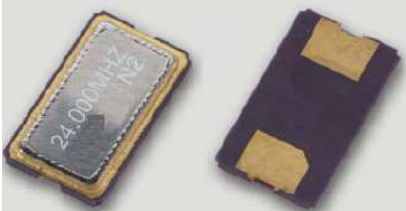
**SMD Quarz Crystal
6,0x3,5mm 2PAD**

Part No.: **O12020**

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Ordering Informations

Serie	Frequency Range	Frequency Tolerance	Frequency Stabil. (ppM)	Temperature Range	Fundamental Mode	Load Capacitance	ROHS	Packing		
O12020	7M6000000	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 N = NON ROHS Conform	TR102 = Tape /Reel 1000PCS BU101 = Bulk Ware 100PCS
	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		

SMD Quarz Crystal 6,0x3,5mm 2PAD	
Part No.:	O12020
Customer:	

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Soldering Profile

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



**SMD Quarz Crystal
6,0x3,5mm 2PAD**

Part No.: **O12020**

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