

EDCON-COMPONENTS



Features

Compact and thin 5,0x3,2x0,75mm (typ.)
 Exhibits excellent characteristics for many applications included the devices related to mobile bodies.
 Enables automatic mounting, due to the adoption of the emboss taping 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 ~ 48,000Mhz	Please contact us for ranges in frequency
Frequency Tolerance:	$\Delta f/f_0$.+/- 50ppm to +/- 10ppm	AT 25°C
Storage Temperature Range:	T_{STG}	. -40°C to +85°C	
Load Capacitance:	C_L	20pf typ.	Please specify
Shunt Capacitance:	C_o	5.0 pf Max.	
Drive Level:	DL	100µW Max.	
Insulation Resistance:	IR	500MΩ Min.	DC100V +/-15V
Aging (First Year)	$\Delta f/f_0$.+/- 5ppm Max.	25°C +/- 3°C
Sealing:		$1 \times 10^{-2} \mu \text{ Pa.m}^3/\text{s}$ 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 ~ 16,000	80	Fundamental / AT
16,001 ~ 30,000	50	
30,001 ~ 48,000	100	

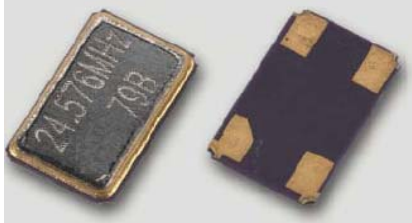
**SMD Quarz Crystal
5,0x3,2mm 4PAD**

Part No.: **O12039**

DRW:	Jose	CHKD	John	MATL:	Victoria	TOLERANCE	Mu Tao	DATE	23.11.2020
APPD:	Victor			FINISH	Oliver		Sheet No.		1 from 4

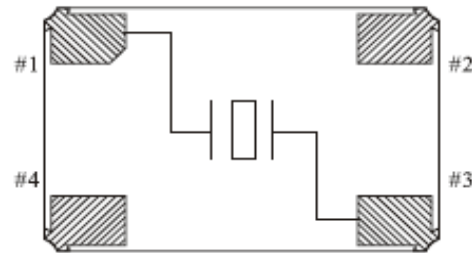
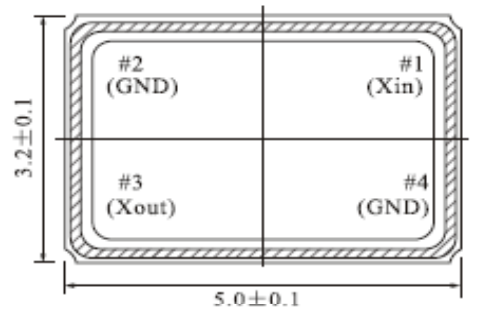
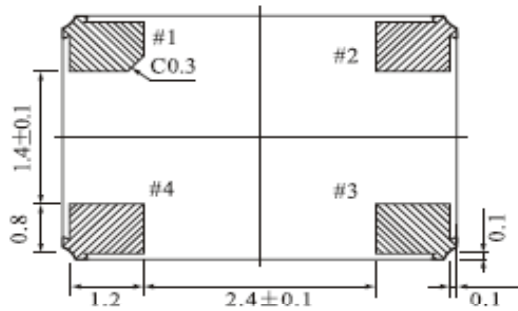
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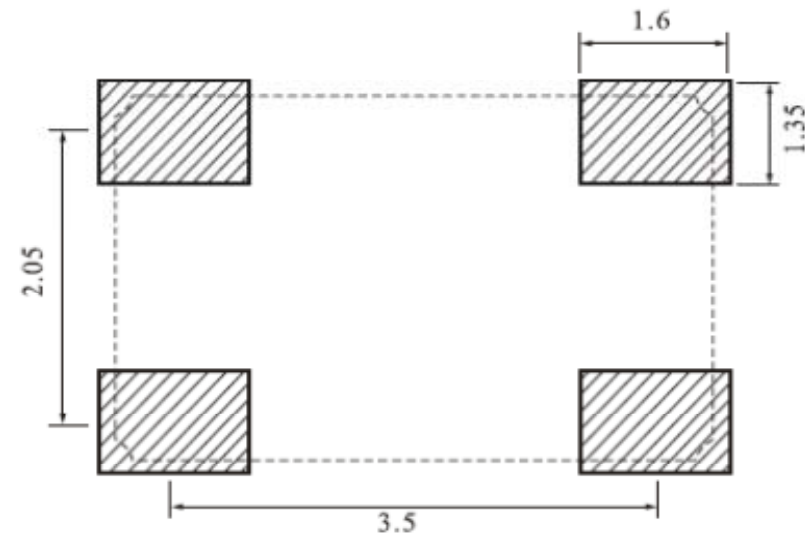


Technical Dimensions Dimensions (mm)

P.C.B. Layout



Electro Arrangement



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Ordering Informations

Serie	Frequency Range	Frequency Tolerance	Frequency Stabil. (ppM)	Fundamental Mode	Temperature Range	Load Capacitance	ROHS	Packing		
O12039	8M00000	C	1	A	B	C	R	TR		

6 Letters (empty fill w. 0)	C = +/-30ppm	3 = +/-30ppm	A = Fundamental B = 3th Overtone	1 = -10°C ~ +60°C	A = 8pf B = 10pf	R = ROHS Conform N = NON ROHS Conform	TR = Tape /Reel BU = Bulk Ware
	D = +/-20ppm	4 = +/-20ppm		2 = -20°C ~ +70°C	C = 12pf		
	E = +/-10ppm	5 = +/-10ppm		3 = -40°C ~ +85°C	D = 15pf		
					E = 16pf		
					F = 18pf		
					G = 20pf		
					H = 22pf		
					I = 27pf		
				J = 33pf			
				L = 30pf			

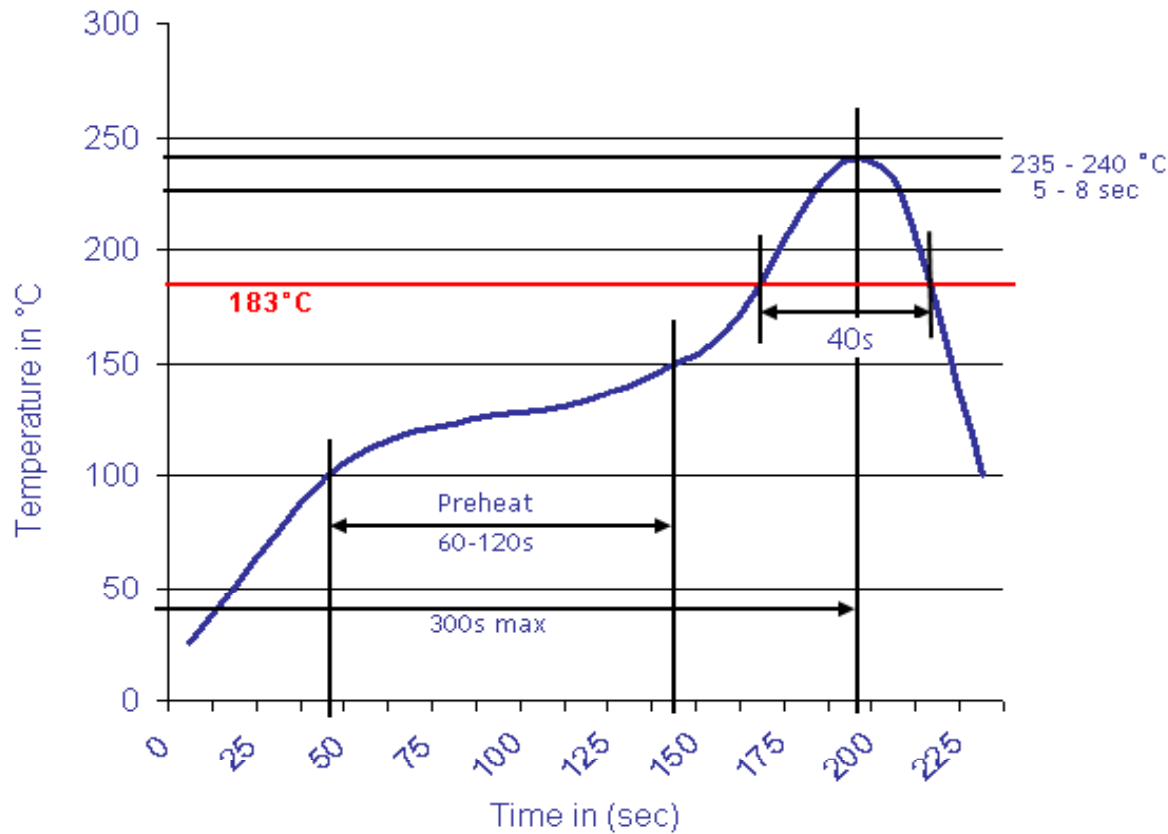
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Soldering Profile

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



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