



2.5 x 2.0 x 0.5 mm



**SPECIFICATION:**

Frequency Range: 16,00 ~ 55 Mhz  
 Operation Mode: Fundamental  
 Operating Temperature: . -10°C to + 50°C (see options)  
 Storage Temperature: . -40°C to + 85°C  
 Frequency Tolerance: ± 20ppm max. (see options)  
 Frequency Stability: ± 30ppm max. (see options)  
 Equ. Serie Resistance: see ESR table  
 Shunt Capacitance: 7pf max.  
 Load Capacitance: 10pf (see options)  
 Drive Level: 10 ~100µ W. max.  
 Aging @ xx per Year .+/- 5ppm @ 25°C  
 Insulation Resistance: 500MΩ min. with 100Vdc ±15Vdc

**Technical and Mechanical Explanation**

Temperature cycling: . +/-5ppm max. -55°C to +85°C, 3Cycles, 2hours max. Reference 25°C.  
 Thermal Shock: . +85°C and -55°C. Exposure time at extreme temperature for 5 minutes, 3 cycles.  
 Vibration: Frequency with an amplitude of 1,5mm sweeping between 10Hz to 55Hz within 1 minute for 2 hours minimum on each axis (x,y,z)  
 Drop test: Natural drop on a hard wood board at 75cm , 3 times  
 Humidity: 85% RH at +85°C, 96 hours minimum  
 Marking permanency: Dip units in solvents, 10strokes with brush , 3 times  
 Fine leak test: Helium leak, <2E-8atm. Cc/sec.  
 Gross leak test: 100% in De-ionized water or Perfluorocarbon for 60s. Min.  
 Solderability: Dip in solder (255°C +/- 5°C for 5 seconds. More than 95% of surface being tested should be coated uniformly with solder.  
 Lead bend: Will with stand maximum bend of 90°C reference to base for 2 bends.

**Dimensions (mm)**

Length:	2.5mm
Wide:	2,0mm
Height	0,5mm

**Standard ESR table**

Frequency	ESR max.
16,000 ~ 19,999 Mhz	150 Ω
20,000 ~ 29,999Mhz	100 Ω
30,000 ~ 55,000Mhz	70 Ω

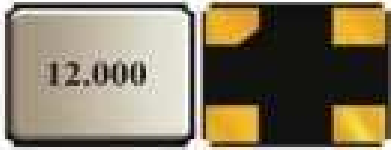
**SMD Quarz Crystal  
2,5x2,0mm**

Part No.: **O12049**

DRW:	HQ	CHKD	Wilson	MATL:	WHX	TOLERANCE	John	DATE	09.11.2013	Customer:
APPD:	YQ	HHQ		FINISH	XM		Sheet No.	1 from 4		

[www.edcon-components.com](http://www.edcon-components.com)

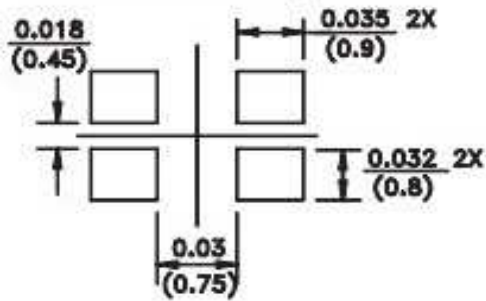
email: [info@edcon-components.com](mailto:info@edcon-components.com)



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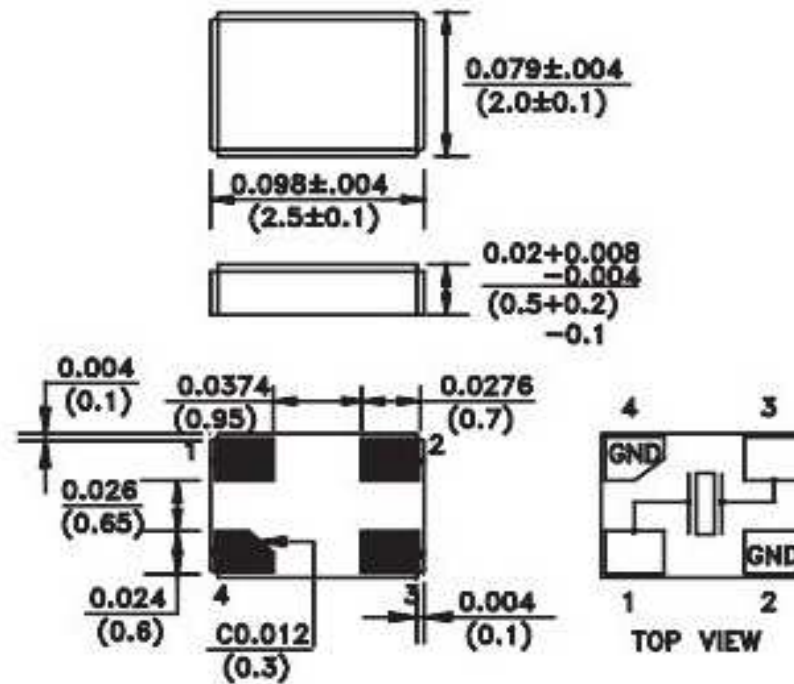


P.C.B Layout



Note: Due to the availability of raw materials the chamfer location may vary. (Pin 1,2 or 4 Be advised that this does not affect the electrical characteristics of the crystal in any way.

Drawing

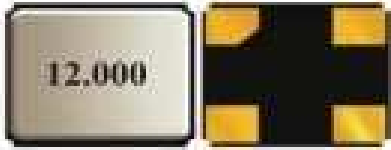


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2.5 x 2.0 x 0.5 mm



**Ordering Informations**

Serie	Frequency	Frequency Tolerance (ppm)	Frequency Stability (ppm)	Oscillator Mode	Operating Temperature	Load Capacity	Rohs Conform	Packing		
<b>O12049</b>	<b>16M0000</b>	<b>B</b>	<b>2</b>	<b>A</b>	<b>1</b>	<b>B</b>	<b>R</b>	<b>TR</b>		

<b>xMxxxxx Mhz (max 6 Letters)</b>			<b>A= Fund.</b>	<b>1= -10°C ~ +50°C</b>	<b>B= 10pf</b>	<b>R= Rohs Conform</b>	<b>BU= Bulk Ware</b>
	<b>B= 50ppm</b>	<b>2= 50ppm</b>		<b>2= -20°C ~ +70°C</b>	<b>C= 12,5pf</b>	<b>N= NON Rohs Conform</b>	<b>TR= Tape Reel</b>
	<b>C= 30ppm</b>	<b>3= 30ppm</b>		<b>3= -40°C ~ +85°C</b>	<b>D= 15pf</b>		
	<b>D= 20ppm</b>	<b>4= 20ppm</b>			<b>E= 16pf</b>		
	<b>E= 10ppm</b>	<b>5= 10ppm</b>			<b>F= 18pf</b>		
					<b>G= 20pf</b>		
				<b>H= 22pf</b>			
				<b>I= 27pf</b>			
				<b>J= 33pf</b>			
				<b>K= 33pf</b>			
				<b>L= 30pf</b>			

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APPD:	YQ	HHQ		FINISH	XM		Sheet No.		3 from 4

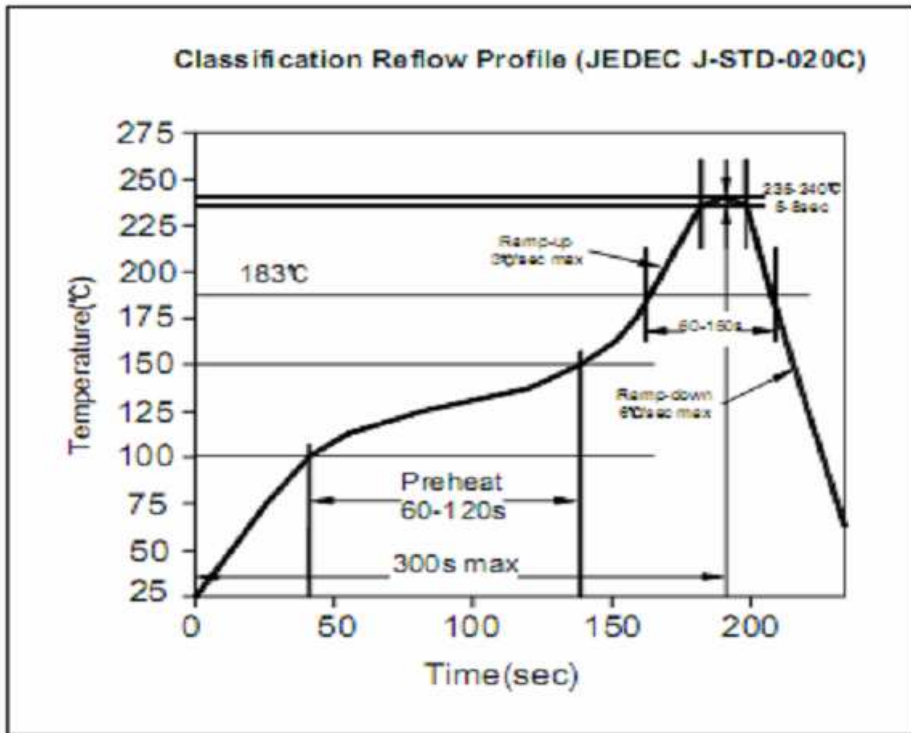


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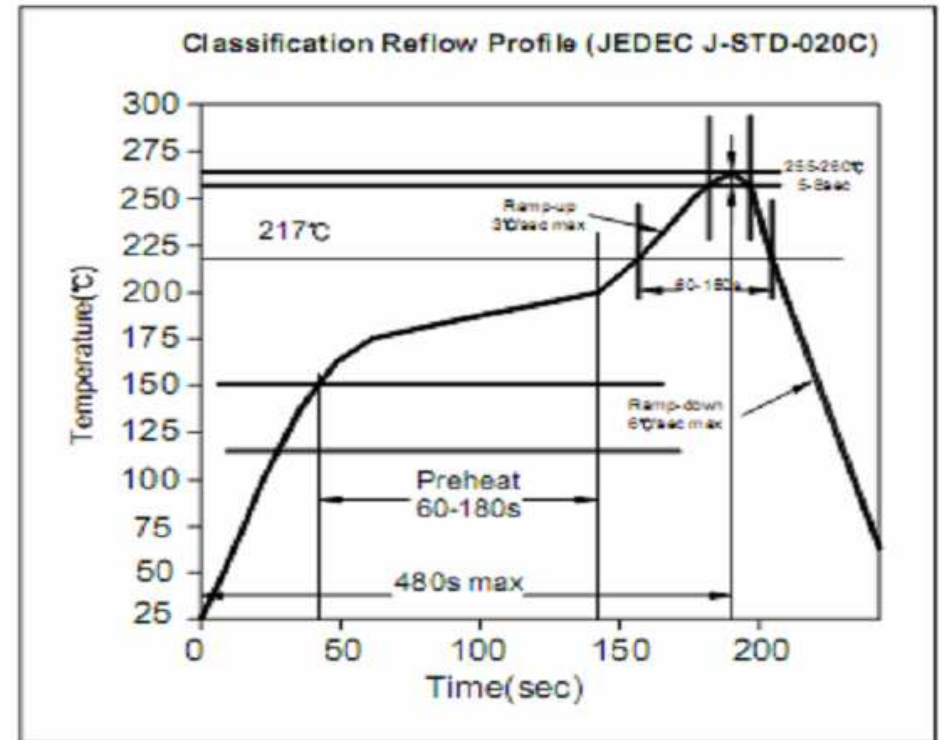


**Soldering Conditions**

**Lead Soldering Conditions**



**Lead Free Soldering Conditions**



**SMD Quartz Crystal  
2,5x2,0mm**

Part No.: **012049**

DRW:	HQ	CHKD	Wilson	MATL:	WHX	TOLERANCE	John	DATE	09.11.2013
APPD:	YQ	HHQ		FINISH	XM		Sheet No.	4 from 4	Customer: