

# 752 SMX-2 Series

## 7.0 x 5.0mm Crystal unit



RoHS & REACH compliant  
Wide frequency range  
Excellent stability range



Parameters		Specification	Remarks
Frequency Range	F_nom	6.0MHz ~ 125.0MHz	
Frequency Tolerance	F_tol	±30.0ppm ~ ±50.0ppm	
Frequency stability over operating temperature range	F_stb	±10.0ppm ~ ±50.0ppm	Table 2
Operating Temperature Range	T_use	0°C ~ +50°C to -40°C ~ +85°C	Table 2
Storage temperature	T_stg	-40°C ~ +85°C	
Load capacitance	CL	8.0pF ~ 30.0pF, series	
Equivalent Series Resistance	ESR	Table 1	
Shunt capacitance	C0	5.0pF max	
Drive level	DL	300µW max	
Frequency Aging	F_age	±5.0ppm / year max	
Moisture sensitivity level	MSL	1 (unlimited)	
Electrostatic discharge	ESD	Not applicable	
Insulation resistance	IR	500MΩ min	At 100V DC

### Dimensions (mm)

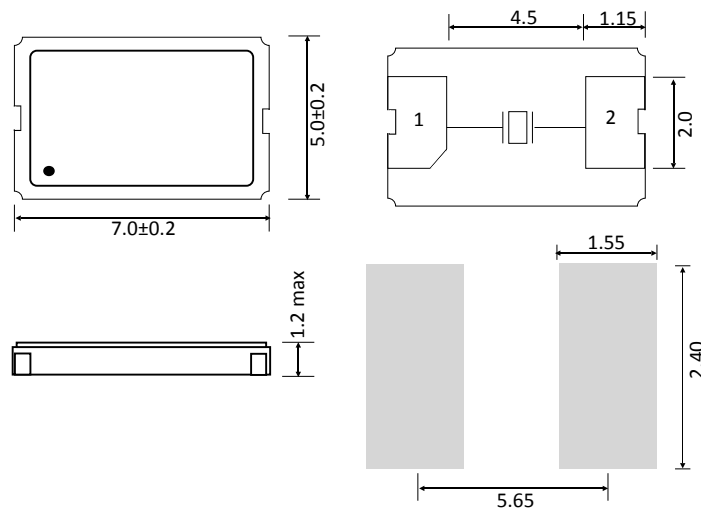


Table 1. Frequency range (MHz) vs ESR

6.0MHz ~ 8.000MHz (Fundamental)	150Ω
8.0MHz ~ 9.000MHz (Fundamental)	100Ω
9.0MHz ~ 10.000MHz (Fundamental)	60Ω
10.0MHz ~ 11.000MHz (Fundamental)	50Ω
11.0MHz ~ 13.000MHz (Fundamental)	40Ω
13.0MHz ~ 50.000MHz (Fundamental)	30Ω
26.0MHz ~ 125.000MHz (3 <sup>rd</sup> overtone)	100Ω

Table 2 Frequency Stability vs Temperature

Temp. (°C)	stability in ppm					
	±10	±15	±20	±30	±50	±100
0°C ~ 50°C	✓	✓	✓	✓	✓	✓
-10°C ~ 60°C		✓	✓	✓	✓	✓
-20°C ~ 70°C		✓	✓	✓	✓	✓
-40°C ~ 85°C				✓	✓	✓

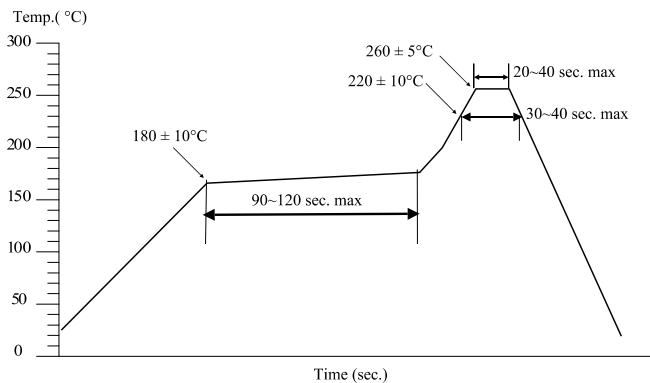
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Part number generation								
CJ	2700	G	K	L	GO	F	L	-PF
ACT Series Code	Frequency (MHz)	Frequency Tolerance ( $\pm$ ppm)	Frequency stability over temperature range ( $\pm$ ppm)	Operating Temperature Range ( $^{\circ}$ C)	Load capacitance (CL -pF)	Frequency mode	Packaging (Tape & Reel)	RoHS
CJ	8MHz = 0800 27MHz = 2700  Note: Use the first 4 characters of the frequency in Hz i.e. 27MHz =27000000Hz  If the frequency is 100MHz or higher then the first 5 characters are used	$\pm 10 = E$ $\pm 15 = F$ $\pm 20 = G$ $\pm 25 = H$ $\pm 30 = I$ $\pm 50 = L$	$\pm 10 = F$ $\pm 15 = G$ $\pm 20 = I$ $\pm 30 = K$ $\pm 50 = O$ $\pm 100 = V$	0 ~ +50 = A -10 ~ +60 = E -20 ~ +70 = G -30 ~ +85 = L -40 ~ +85 = M	8 = GO 9 = JO 10 = KO 12 = OO 13 = YO 14 = ZO 16 = RO 18 = TO 20 = VO 22 = WO 30 = DA Series = SR	Fundamental = F  3 <sup>rd</sup> Overtone = A	Loose = L 1000pcs = C	RoHS = -pF
<p>Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below. Full Example Part Number : <b>CJ2700GKLGOF-L-PF [27.000MHz]</b> , <b>CJ2457GKLGOF-L-PF [24.576MHz]</b></p>								

## Solder Reflow Profile



## Additional information

Drawing control: (Internal use only)  
Commodity code: 854160 00 00  
Issue number: 1  
Date: 1/02/2017  
Internal reference: H3