

753 SMX-4 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	±10.0ppm ~ ±50.0ppm	
Frequency stability over operating temperature range	F_stb	±10.0ppm ~ ±100.0ppm	Table 2
Operating temperature range	T_use	0°C ~ +60°C to -40°C ~ +105°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	7.0pF max	
Drive level	DL	200µW max	
Frequency aging	F_age	±3.0ppm / year max	
Moisture sensitivity level	MSL	1 (unlimited)	
Electrostatic discharge	ESD	Not applicable	
Insulation resistance	IR	500MΩ min	At 100V DC

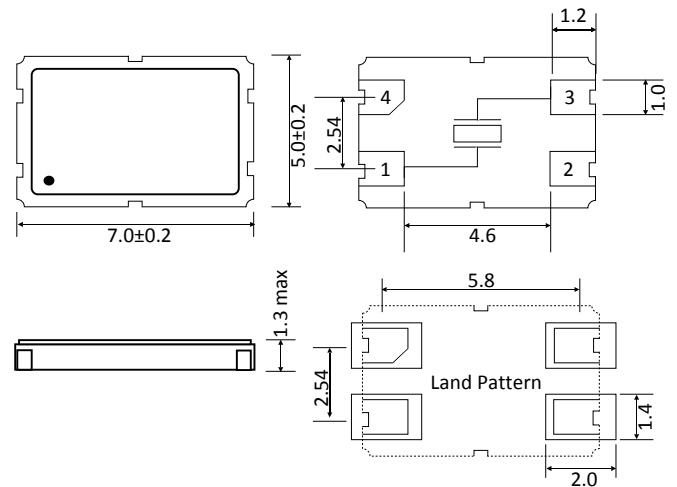
Table 1. Frequency range (MHz) vs ESR

6.0MHz ~ 6.999MHz (Fundamental)	120Ω
7.0MHz ~ 9.999MHz (Fundamental)	70Ω
10.0MHz ~ 11.999MHz (Fundamental)	60Ω
12.0MHz ~ 14.999MHz (Fundamental)	60Ω
15.0MHz ~ 19.999MHz (Fundamental)	50Ω
20.0MHz ~ 34.999MHz (Fundamental)	40Ω
35.0MHz ~ 43.999MHz (3 rd overtone)	80Ω
44.0MHz ~ 49.999MHz (3 rd overtone)	60Ω
50.0MHz ~ 79.999MHz (3 rd overtone)	60Ω
80.0MHz ~ 125.000MHz (3 rd overtone)	60Ω

Table 2. Frequency Stability vs Temperature

Temp. (°C)	Stability in ppm						
	±7.5	±10	±15	±20	±30	±50	±100
-10°C ~ 60°C	√	√	√	√	√	√	√
-10°C ~ 70°C	√	√	√	√	√	√	√
-20°C ~ 70°C	√	√	√	√	√	√	√
-30°C ~ 70°C		√	√	√	√	√	√
-20°C ~ 85°C			√	√	√	√	√
-30°C ~ 85°C				√	√	√	√
-40°C ~ 85°C				√	√	√	√
-40°C ~ 105°C					√	√	√

Dimensions (mm)



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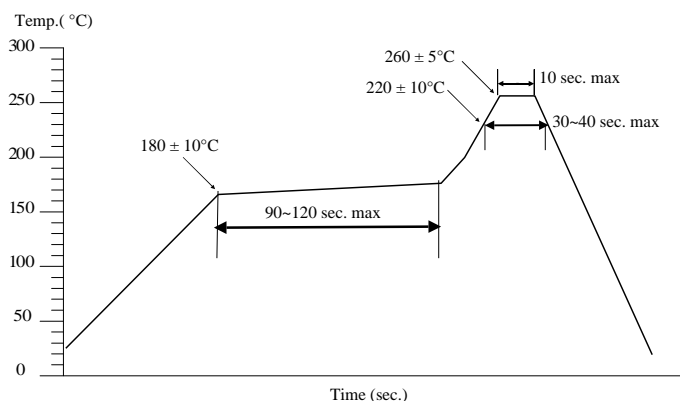
7.0 x 5.0mm Crystal unit



Part number generation								
EA	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
EA	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 100 = N	\pm 7.5 = D \pm 10 = F \pm 15 = G \pm 20 = I \pm 30 = K \pm 50 = O \pm 100 = V	0 ~ +60 = B -10 ~ +60 = E -10 ~ +70 = F -20 ~ +70 = G -30 ~ +65 = W -30 ~ +70 = T -20 ~ +85 = H -30 ~ +85 = L -40 ~ +85 = M -40 ~ +105 = Y	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 rd Overtone = A	Loose = L 1000pcs = C	RoHS = -pF

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 : **EA0800GKLGOF-L-PF [8.000MHz]**, **EA2700GKLGOF-L-PF [27.000MHz]** , **EAL2457GKLGOF-L-PF [24.576MHz]**

Solder Reflow Profile



Additional information

The part number start with prefix “EAL” is available from SCA production line

Drawing control: (Internal use only)
Commodity code: 854160 00 00
Issue number: N1
Date: 1/02/2017
Internal reference: Skr