

晶体谐振器 Crystal Resonator: KX2012 KX3215 KX3880 KX7015

Feature 特征

- Ultra-compact, thin, lightweight crystal unit 超小型，轻薄，轻量化贴片 32.768kHz 谐振器
- Excellent electrical characteristics, ideal for portable electronic products, frequency sources 优异的电性能，适用于便携电子设备，频率源等。

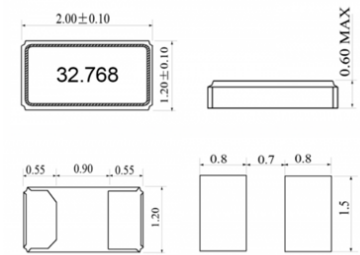
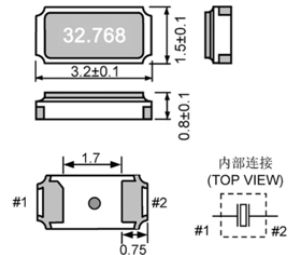
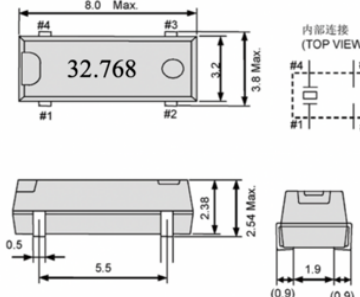
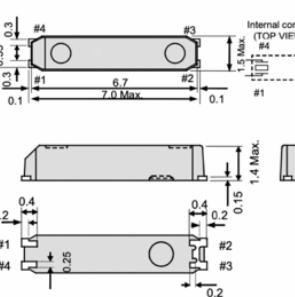


General Specifications 规格参考

PARAMETER	性能参数	KX2012	KX3215	KX3880	KX7015
Package Size	尺寸	2.0 x 1.2 mm	3.2 x 1.5 mm	3.8 x 8.0 mm	7.0 x 1.5 mm
Frequency Range	频率范围	32.768 kHz			
Oscillation Mode	振荡方式	基频			
Frequency Tolerance (25°C±3°C)	调整频差	±5ppm ~ ±20ppm			
Load Capacitance	负载电容	7, 9, 12.5pF	6, 12.5pF	6, 12.5pF	6, 12.5pF
Frequency Stability	温度频差	-0.04ppm * (T - 25) ²			
Operating Temperature Range	温度范围	-40°C ~ +85°C			
Equivalent Series Resistance	谐振电阻	60~80 KΩ	50~80 KΩ	30~50 KΩ	40~50 KΩ
Drive Level	激励电平	0.1μW typical, 0.5μW max			
Shunt Capacitance	静电容	3pF max	3pF max	3pF max	2.5pF max
Insulation Resistance	绝缘电阻	500MΩ min			
Storage Temperature Range	储存温度范围	-55°C to +125°C			
Aging Per Year	老化率	±3ppm/year max			
Temperature Coefficient	频率温度系数	0.04ppm/°C ² max			
Turnover Temperature	拐点温度	25°C ± 5°C			

NOTE: Please consult for other specifications 若有其它规格需求请告知

Outline Dimensions (Unit: mm) 外形尺寸

KX2012		KX3215	
KX3880		KX7015	

Part Number Guide 产品编号

KX2012	-	32.768	-	F	-	12.5	-	C	-	15	-	NS
↓		↓		↓		↓		↓		↓		↓
型号	-	标称频率	-	振荡方式	-	负载	-	工作温度	-	调整频差	-	特殊要求

‘KX’: 产品系列
‘2012’: 封装尺寸
kHz

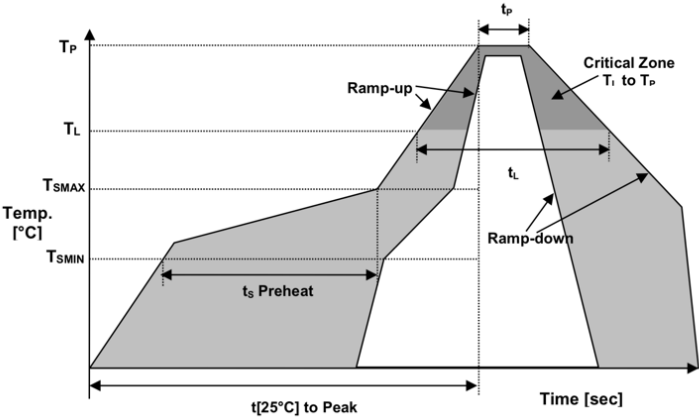
(In KHz)

F-基频

C: -40~+85°C

05 = ±5ppm
10 = ±10ppm
15 = ±15ppm
20 = ±20ppm

Reflow Profile 回流焊



Temperature Min Preheat	最低预热温度	T _{smin}	150°C
Temperature Max preheat	最高预热温度	T _{smax}	200°C
Time (T _{smin} to T _{smax})	时间差	T _s	60~120 sec
Temperature	温度	T _L	217°C
Peak Temperature	最高温	T _p	260 °C
Ramp-up Rate	升温速度	R _{up}	3°C/sec max
Ramp-down Rate	降温速度	R _{down}	6°C/sec max
Time within 5°C of Peak Temperature	最高温度停留时间	t _p	30 sec
Time t[25°C] to peak temperature	25度到最高温度时间	t[25°C] to peak	480 sec
Time	时间	t _L	60~150 sec

Revision 版本

版本 Rev.	修改页 Revise Page	修改内容 Revise Contents	日期 Date	修改人 Reviser
0	N/A	Initial issue	2020.09.27	JZ