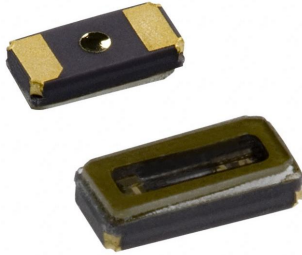


SMD QUARTZ CRYSTAL RESONATOR



2 Pad Version 3.2×1.5 mm

- Tuning fork crystal in standard package
- 32.768 KHz standard
- ±20 ppm Standard
- Excellent Reliability Performance
- Reflow soldering temperature: 260℃ max

RoHS
2002/95/

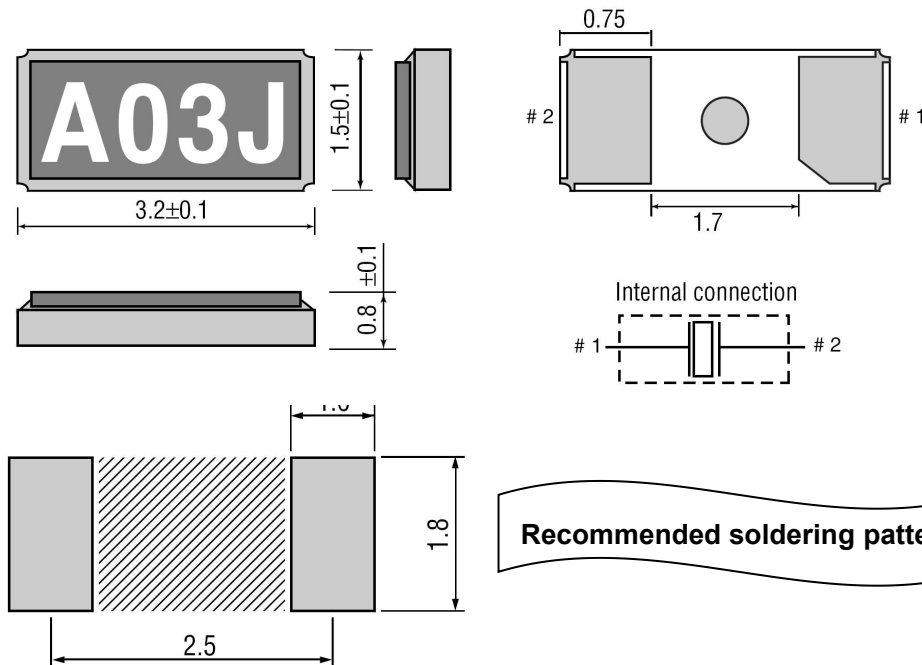
RoHS compliant

★ PARAMETERS

PARAMETERS	SPECIFICATION
Frequency Range	32.768KHz
Loading Capacitance	12.5pF Std. 7 pF available
Drive Level	1.0 μ W Max
Frequency Tolerance	±20ppm (at 25℃)
Equivalent Resistance	70K Ω Max
Temperature coefficient	-0.04×10 ⁻⁶ /°C ² max
Operating Temp. Range:	-40~+85℃
Storage Temp. Range:	-55~+125℃
Aging (25℃, First Year)	±3ppm max

© All specification subject change without notice.

★ DIMENSIONS& LAND PATTERN LAYOUT (Unit: mm)



Recommended soldering pattern

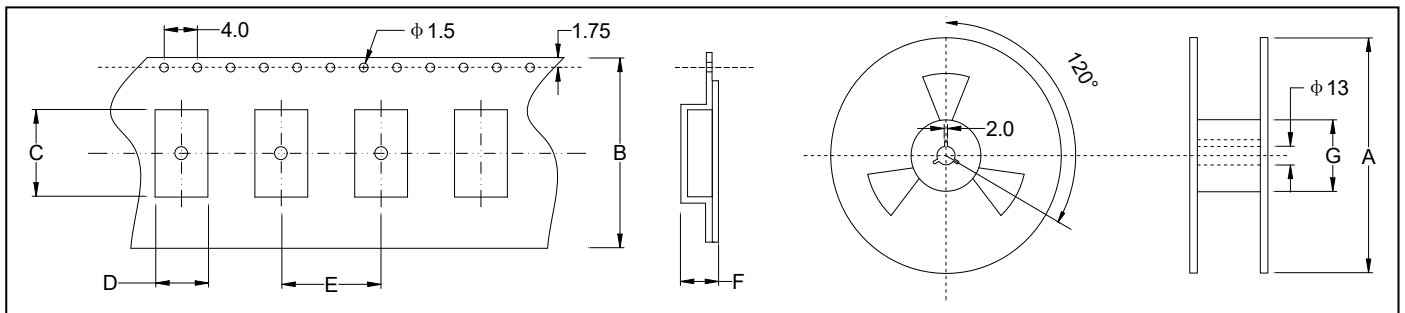
★ PART NUMBER GUIDE

e.g. FTX32.768K12.5SM3-20D (*SM3=3.2×1.5 SMD)

	Quartz Crystal Resonator	Frequency Hz	Load Capacitance pF	Package	Frequency Tolerance ppm	Operating Temp. Range
FT	X	32.768KHz	12.5	SM3	20	D

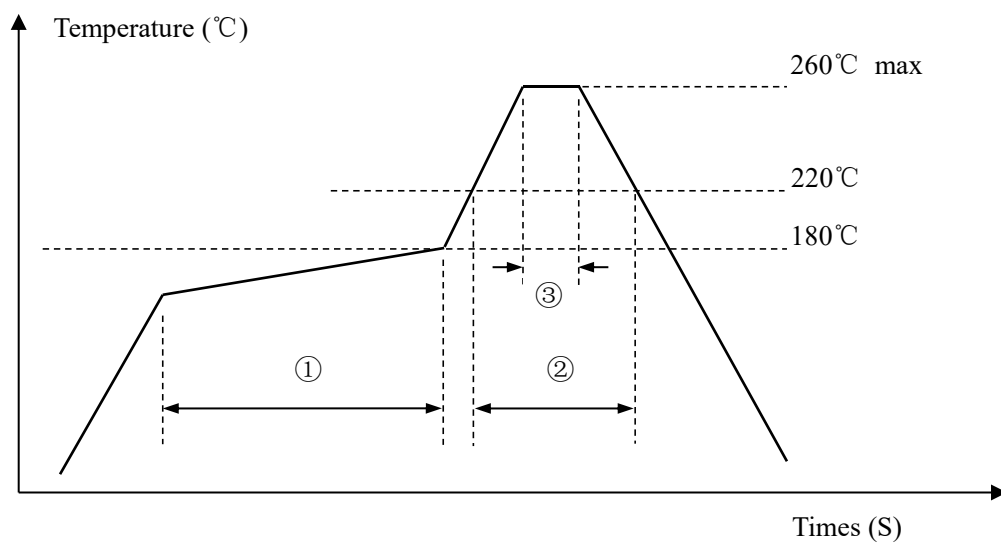
Definition	Description
Operating Temperature Range	A: -10~+60℃
	B: -20~+70℃
	C: -30~+80℃
	D: -40~+85℃
	E: Customer specified

★ TAPING SPECIFICATION (Unit: mm)



	A	B	C	D	E	F	G
SMD3.2×1.5	180	12	3.45	1.75	4.0	1.0	60
3000 pcs per reel							

★ REFLOW SOLDERING PROFILE



Pb free reflow A	①	Preheat	160~180℃	100sec. max
	②	Primary heat	220℃	35sec. max
	③	Peak	260℃	10sec. max