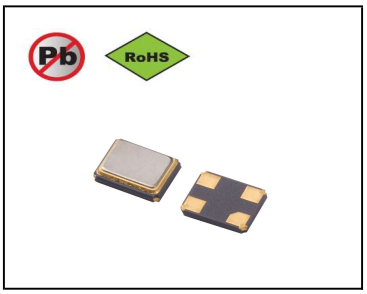
KC5 CRYSTAL UNIT



■ SMD X-TAL 5.0×3.2mm 4PAD Seam Sealing

- Miniature and lightweight Surface Mount package
- Fundamental and 3rd overtone crystal design
- Wide temperature and Ultra low ESR
- AEC-Q200 available

● Applications : Consumer electronics, Communications, Test equipment, Automotive electronics

■ Standard Specification

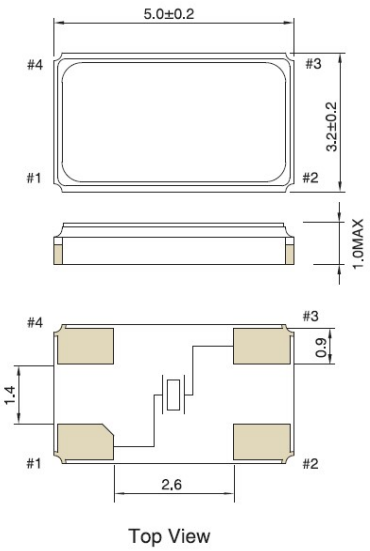
Frequency range	7.3728MHz to 160.000MHz	
Oscillation mode	Fundmental & 3rd overtone	
Load capacitance (CL)	6pF to 32pF or please specify	
Frequency tolerance (25℃)	±10ppm, ±20ppm, ±30ppm	
Frequency Stability vs Temp range	Temp Stability	Operating temp
	±10ppm ±15ppm ±20ppm ±30ppm ±50ppm	-20 to +70℃ -30 to +85℃ -40 to +85℃ -40 to 105℃ -40 to 125℃
Storage temperature range	-55℃ to +125℃	
Shunt Capacitance (C0)	7.0pF Max	
Level of drive (DL)	100㎼ Max (std) or please specify	
Aging (Initial first year)	± 3ppm Max	

■ Motional resistance (ESR)

Frequency (MHz)	8 ≤ f < 12	12 ≤ f < 32	32 ≤ f < 54	40 ≤ f < 160
CI (Ω) max	80	60	40	80
Oscillation mode	Fundmental			3rd overtone

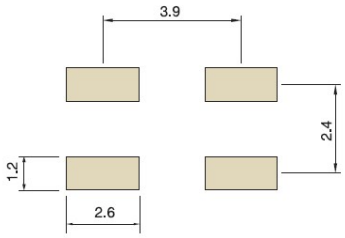
*Please contact us for lower ESR

■ Dimensions (mm)



Top View

• Recommended Soldering Pattern



CONNECTION
#1 : X-TAL
#2 : GND
#3 : X-TAL
#4 : GND

■ Part Numbering Guide

KC5 10 1 30 AJ 24.000000 TR

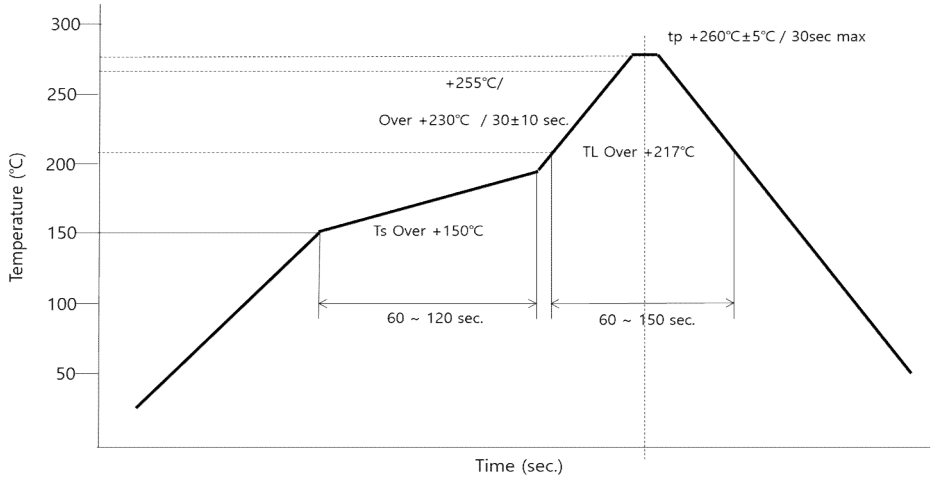
- ▶Package Type
- ▶Load Capacitance (pF)
- ▶(1) : Fund. AT, (3) : 3rd OT
- ▶Packing Type
  (TR) : Tape&Reel [1,000pcs], (Blank) : Bulk
- ▶Center Frequency : xxx.xxxxxxMHZ
- ▶Stability(ppm) vs. Temperature Range(℃)
- ▶@25℃ Tolerance (±ppm)

■ Frequency Stability vs. Temperature Range

Temp' vs Stability		±10ppm	±15ppm	±20ppm	±25ppm	±30ppm	±50ppm	±100ppm	±150ppm
		J	K	L	M	N	O	P	Q
-10 ~ 60℃	A	◎	◎	◎	◎	◎	◎	◎	◎
-10 ~ 70℃	B	◎	◎	◎	◎	◎	◎	◎	◎
-20 ~ 70℃	C	◎	◎	◎	◎	◎	◎	◎	◎
-30 ~ 70℃	D		◎	◎	◎	◎	◎	◎	◎
-30 ~ 85℃	E		◎	◎	◎	◎	◎	◎	◎
-40 ~ 85℃	F		◎	◎	◎	◎	◎	◎	◎
-40 ~ 90℃	G					◎	◎	◎	◎
-40 ~ 105℃	H					◎	◎	◎	◎
-40 ~ 125℃	I					◎	◎	◎	◎
-40 ~ 150℃	J							◎	◎

*Please contact us for other specifications.

■ Recommendation reflow condition



(1) Reflow soldering heat resistance
Peak Temp. : 265℃, 30sec max.
Heating : 230℃ or higher, 40sec.
Preheating : 150~180℃, 120sec.
Reflow passage times : 2 times

(2) Manual soldering heat resistance
Pressing a soldering iron of 350℃ on the terminal electrode
Soldering touch time : 4sec.
Manual soldering times : 2 times