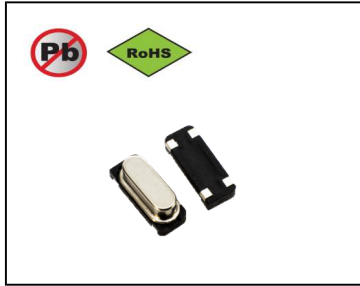


KX4**CRYSTAL UNIT****■ ATS SMD Height : 4.0mm (4PAD)**

- Four Leaded Metal Can Surface Mount package
- Fundamental and 3rd overtone crystal design
- Tight stability and Ultra low ESR available

- Applications : Consumer electronics, Industrial applications, Telecommunications

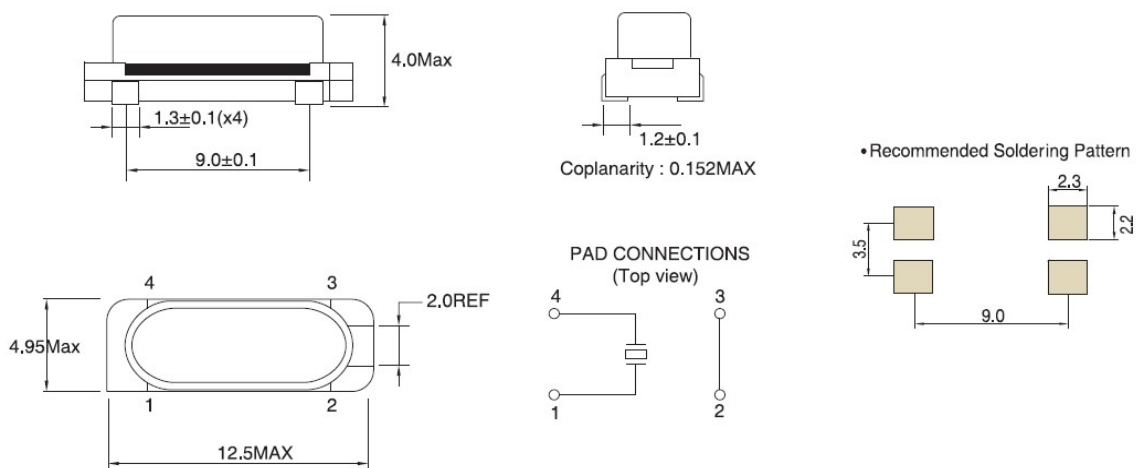
■ Standard Specification

Frequency range	3.579545MHz to 75.000MHz	
Oscillation mode	Fundmental & 3rd overtone	
Load capacitance (CL)	6pF to 32pF or please specify	
Frequency tolerance (25°C)	±10ppm, ±20ppm, ±30ppm, ±50ppm	
Frequency Stability vs Temp range	Temp Stability	Operating temp
	±15ppm ±20ppm ±30ppm ±50ppm ±100ppm	-10 to +60°C -20 to +70°C -40 to +85°C
Storage temperature range	-55°C to +125°C	
Shunt Capacitance (C0)	7.0pF Max	
Level of drive (DL)	300μW Max (std) or please specify	
Aging (Initial first year)	± 3ppm Max	

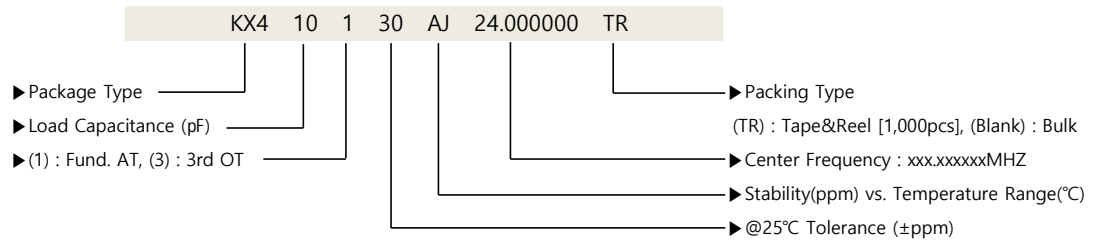
■ Motional resistance (ESR)

Frequency (MHz)	Mode	CI (Ω) max	Frequency (MHz)	Mode	CI (Ω) max
$3.579545 \leq f < 4.2$	F	140	$12 \leq f < 34$	F	40
$4.2 \leq f < 5$	F	100	$22 \leq f < 40$	BT	40
$5 \leq f < 8$	F	80	$26 \leq f < 45$	3rd	70
$8 \leq f < 12$	F	60	$45 \leq f < 75$	3rd	60

*Please contact us for lower ESR

■ Dimensions (mm)

Part Numbering Guide

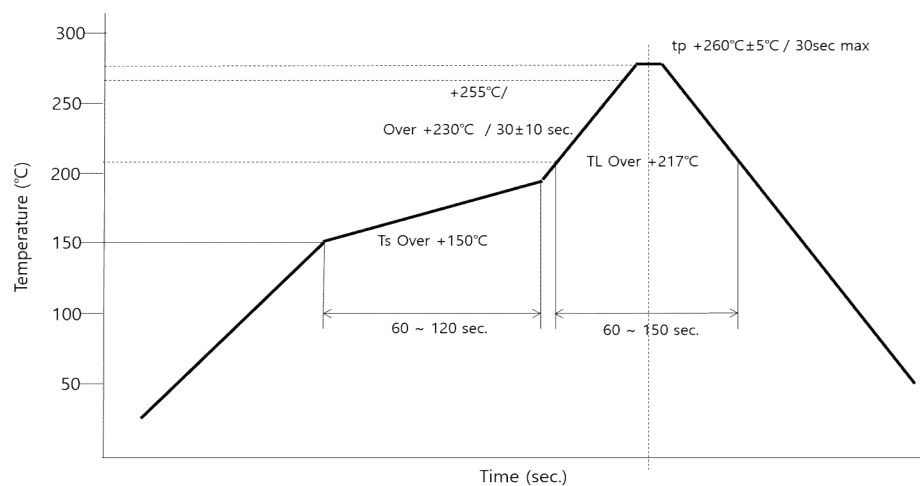


Frequency Stability vs. Temperature Range

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

*Please contact us for other specifications.

Recommendation reflow condition



(1) Reflow soldering heat resistance
 Peak Temp. : 265°C , 30sec max.
 Heating : 230°C or higher, 40sec.
 Preheating : $150 \sim 180^{\circ}\text{C}$, 120sec.
 Reflow passage times : 2 times

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