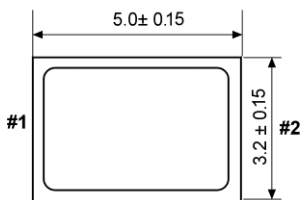


# Quartz Crystal

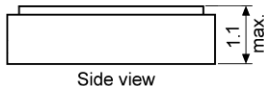
SMD-version

part no.	12.xxxxx
model	KX – 9B
frequency range	8.0 ~ 50.0 MHz
mode	fundamental
operating temperature	standard -20° ~ +70°C available -40° ~ +85°C (=KX-9BT); -40° ~ +105°C (=KX-9BE)
frequency tolerance at +25°C	standard ±50 ppm; available ±10 ~ ±50 ppm
temperature tolerance at -20° ~ +70°C; -40° ~ +85°C; -40° ~ +105°C	standard ±50 ppm; available ±10 ~ ±100 ppm standard ±120 ppm; available ±30 ~ ±120 ppm
load capacitance C <sub>L</sub>	standard 16 pF; available 10 ~ 20 pF
series resistance R <sub>1</sub> (ESR) max.	fundamental 8.0 ~ 16.0 MHz 100 Ohm 16.1 ~ 20.0 MHz 60 Ohm 20.1 ~ 50.0 MHz 40 Ohm
aging at +25°C (first year) max.	±2 ppm
shunt capacitance C <sub>0</sub> max.	5.0 pF
drive level max.	200 µW
contents of reel	1000 pcs.

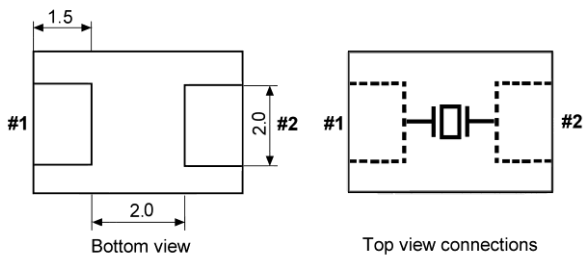
**Dimensions:**



Top view



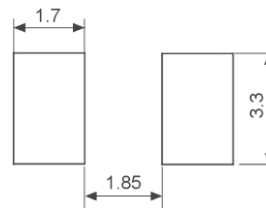
Side view



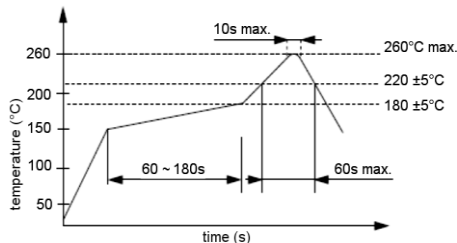
Bottom view

Top view connections

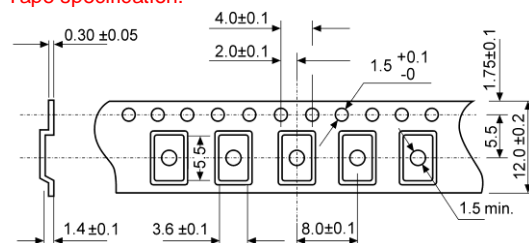
**Suggested soldering pad:**



**Reflow soldering condition:**



**Tape specification:**



reel diameter 178 mm