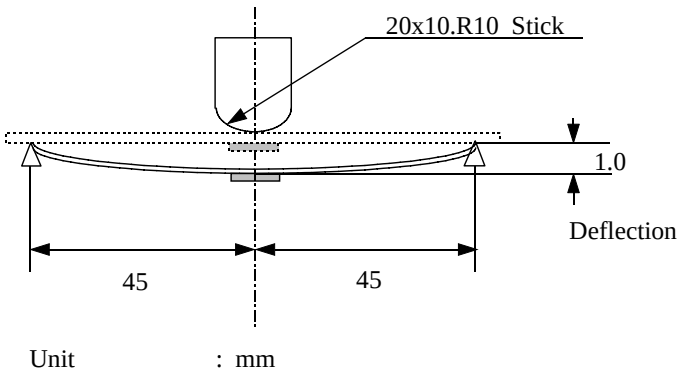
Ceramic Resonator MHz SMD Type Two-Three Terminal Series (7.00MHz to 50.00MHz)

ITEM	CONDITION & REQUIREMENT
5-1. Storage in High Temp.	After being placed in a chamber with +85 ± 2 ℃ for 500 hours and then being placed in natural condition for 2 hour, then measure. ⇒ *To be satisfied Table 1.*
5-2. Storage in Low Temp.	After being placed in a chamber with -55 ± 2 ℃ for 500 hours and then being placed in natural condition for 2 hour, then measure. ⇒ *To be satisfied Table 1.*
5-3. Humidity	After being placed in a chamber within +90 to 95% R. H. at +60 ± 2 ℃ for 500 hours and then being placed in natural condition for 2 hour, then measure. ⇒ *To be satisfied Table 1.*
5-4. Heat Shock	After being kept at room temperature, the resonator shall be placed at temperature of -55 ℃. After 30 minutes at this temperature resonator shall be immediately placed at temperature of +85 ℃. After 30 minutes at this temperature resonator shall be returned to -55 ℃ again. After five above cycles, the resonator shall be returned to room temperature for at least 2 hour, then measure. ⇒ *To be satisfied Table 1.*
5-5. Random Drop	Resonator shall be measured after 3 times random drops from the height of 1 m on wooden floor. ⇒ *No visible damage and the measured values shall meet Table 1.*
5-6. Vibration Test	Resonator shall be measured after being applied vibration of amplitude to 1.5㎜ with 10 to 55㎐ band of vibration frequency to each of a perpendicular dir- ections for 2 hours. ⇒ *No visible damage and the measured values shall meet Table 1.*
5-7. Bending Strength PCB	Resonator is soldered onto the center of PCB which is laid on the 2 small supporters spaced 90mm. PCB deflected to 1mm below from horizontal level by the pressing force with 20x10.R10 stick. The force is supplied for 1 second, 5 times repeatedly. Velocity of pole for press : 0.5mm/sec.  Unit : mm ⇒ *No visible damage and the measured values shall meet Table 1.*

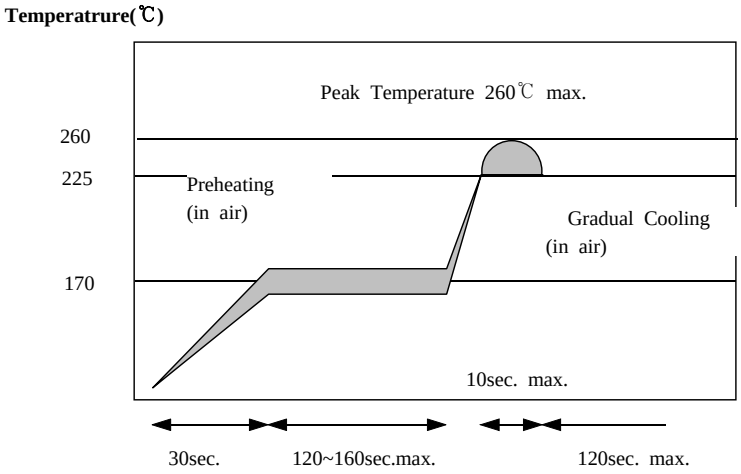
ITEM	CONDITION & REQUIREMENT
5-8. Solderability	End terminals are immersed in rosin for 5 seconds and then immersed in soldering bath of 245±5℃ for 3±0.5 seconds. ⇒ *75% min. End terminals shall be wet with solder.*
5-9. Resistance to Soldering Heat (1) Reflow	Following profile of heat stress is applied to resonator, then being place in natural condition for 1 hour, resonator shall be measured.  1. Preheating conditions shall be 150 to 170℃ for 120 to 160 seconds. Ascending time up to 170℃ shall be longer than 30 seconds. 2. Heating conditions shall be within 10 seconds at 245℃ min., but peak temperature shall be lower than 260℃.
(2) Soldering Iron	Soldering iron of 300±5℃ shall be placed 0.5mm above from electrode of resonator.Melting solder through soldering iron shall be applied to electrode for 3±1 seconds, then being place in natural condition for 24 hour, resonator shall be measured. ⇒ *The measured values shall meet Table 1.*

TABLE 1

MEASUREMENTS	REQUIREMENTS
7~12MHz Oscillating Frequency	± 0.3 % max.(from initial value)
16~50MHz Oscillating Frequency	± 0.2 % max.(from initial value)