## MHz Range Crystal unit FA-128

Product name FA-128 24.000000 MHz 9.0 +10.0-10.0 Product Number / Ordering code Q22FA12800594xx

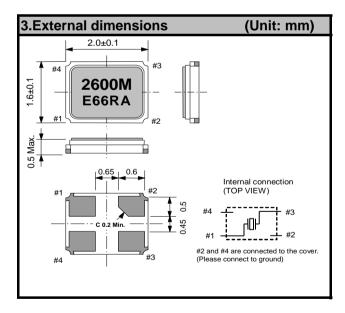
Please refer to the 5.Packing information about xx (last 2 digits)

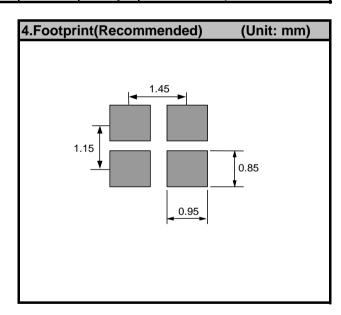
Pb free / Complies with EU RoHS directive

Reference weight Typ. 7 mg

| 1.Absolute maximum ratings |        |      |      |      |      |                           |
|----------------------------|--------|------|------|------|------|---------------------------|
| Parameter                  | Symbol | Min. | Тур. | Max. | Unit | Conditions / Remarks      |
| Storage temperature        | T_stg  | -40  | -    | +125 | °C   | Storage as single product |
| Operating temperature      | T_use  | -40  | -    | +105 | °C   |                           |

| 2.Specifications(characteristics)    |        |      |           |      |                        |                      |
|--------------------------------------|--------|------|-----------|------|------------------------|----------------------|
| Parameter                            | Symbol | Min. | Тур.      | Max. | Unit                   | Conditions / Remarks |
| Nominal frequency                    | f_nom  | _    | 24.000000 | _    | MHz                    | Fundamental          |
| Frequency tolerance                  | f_tol  | -10  | -         | +10  | x 10- <sup>6</sup>     | @+25°C               |
| Frequency Stability over temperature | f_tem  | -15  | -         | +15  | x 10 <sup>-6</sup>     | -40°C to +85°C       |
| Operating temperature                | T_use  | -40  | -         | +85  | ۰C                     |                      |
| Level of drive                       | DL     | 10   | -         | 100  | μW                     |                      |
| Load capacitance                     | CL     | _    | 9         | _    | pF                     |                      |
| Motional resistance (ESR)            | R1     | -    | -         | 80   | Ω                      |                      |
| Motional capacitance                 | C1     | -    | 1.94      | -    | fF                     |                      |
| Motional inductance                  | L1     | -    | 22.6      | -    | mΗ                     |                      |
| Shunt capacitance                    | C0     | -    | 0.60      | 0.00 | pF                     |                      |
| Frequency aging                      | f_age  | -1   | _         | +1   | x10 <sup>-6</sup> /yea | @+25°C, First year   |





| 5.Packing   | informat | ion                          |      |                |  |
|---|----------|------------------------------|------|----------------|--|
| [ 1 ]Product number last 2 digits code (xx) description |          | The recommended code is "18" |      |                |  |
|   | Q22FA12  | 800594xx                     |      |                |  |
|   | Code     | Condition                    | Code | Condition      |  |
|   | 01       | Any Q'ty vinyl bag(Tape cut) | 00   | 3000pcs / Reel |  |
|   | 11       | Any Q'ty / Reel              | 18   | 5000pcs / Reel |  |
|   | 12       | 250pcs / Reel                |      |                |  |
|   | 14       | 1000pcs / Reel               |      |                |  |

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