

Product name FA-128 27.000000 MHz 12.0 +30.0-30.0

Product Number / Ordering code Q22FA12800252xx

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. | Typ. | 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. | Typ.      | Max. | Unit                   | Conditions / Remarks |
| Nominal frequency                    | f_nom  | —    | 27.000000 | —    | MHz                    | Fundamental          |
| Frequency tolerance                  | f_tol  | -30  | -         | +30  | x 10 <sup>-6</sup>     | @+25°C               |
| Frequency Stability over temperature | f_tem  | -30  | -         | +30  | x 10 <sup>-6</sup>     | -40°C to +85°C       |
| Operating temperature                | T_use  | -40  | -         | +85  | °C                     |                      |
| Level of drive                       | DL     | 10   | -         | 100  | μW                     |                      |
| Load capacitance                     | CL     | —    | 12        | —    | pF                     |                      |
| Motional resistance (ESR)            | R1     | -    | -         | 60   | Ω                      |                      |
| Motional capacitance                 | C1     | -    | 1.93      | -    | fF                     |                      |
| Motional inductance                  | L1     | -    | 17.98     | -    | mH                     |                      |
| Shunt capacitance                    | C0     | -    | 0.58      | -    | pF                     |                      |
| Frequency aging                      | f_age  | -5   | —         | +5   | x10 <sup>-6</sup> /yea | @+25°C, First year   |



| 5.Packing information |  |                              |                |
|-----------------------|--|------------------------------|----------------|
| [ 1 ]                 | Product number last 2 digits code (xx) description | The recommended code is "18" |                |
|                       | Q22FA12800252xx                                    |                              |                |
| 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                                     |                              |                |

[ 2 ] Taping specification

Subject to EIA-481 & IEC-60286

(1) Tape dimensions TE0804L

Material of the Carrier Tape : PS

Material of the Top Tape : PET+PE

Unit: mm



(2) Reel dimensions

Center material : PS

Material of the Reel : PS

Unit: mm



**6.Reflow profile**

Reflow condition (Follow of JEDEC STD-020D.01)

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