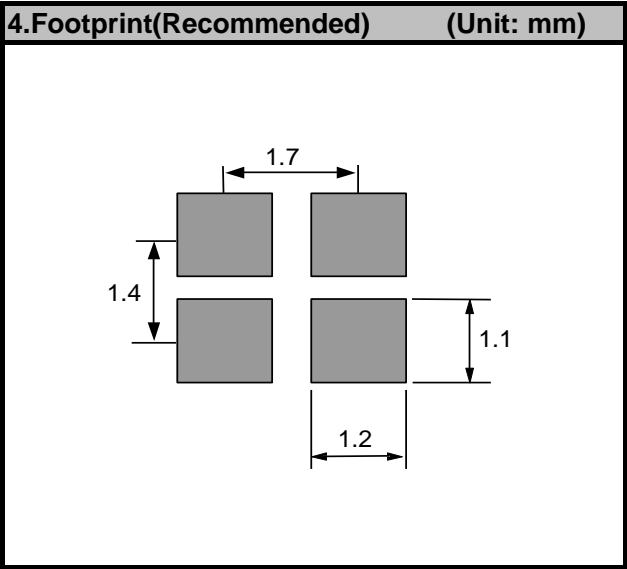
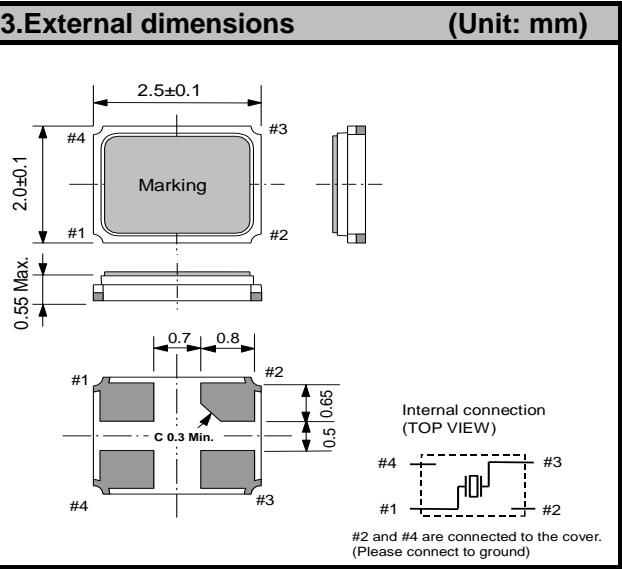


Product nameFA-20H24.000000 MHz 9.0 +30.0-30.0  
Product Number / Ordering codeQ24FA20H00498xx  
Please refer to the 5.Packing information about xx (last 2 digits)

Pb free / Complies with EU RoHS directive  
Reference weight Typ. 11 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  | —    | 24.000000 | —    | 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>     | -20°C to +75°C       |
| Operating temperature                | T_use  | -20  | -         | +75  | °C                     |                      |
| Level of drive                       | DL     | 10   | -         | 100  | μW                     |                      |
| Load capacitance                     | CL     | —    | 9         | —    | pF                     |                      |
| Motional resistance (ESR)            | R1     | -    | -         | 80   | Ω                      |                      |
| Motional capacitance                 | C1     | -    | 2.71      | -    | fF                     |                      |
| Motional inductance                  | L1     | -    | 16.23     | -    | mH                     |                      |
| Shunt capacitance                    | C0     | -    | 1.01      | -    | pF                     |                      |
| Frequency aging                      | f_age  | -1   | —         | +1   | 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"

Q24FA20H00498xx

| 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               |      |                |

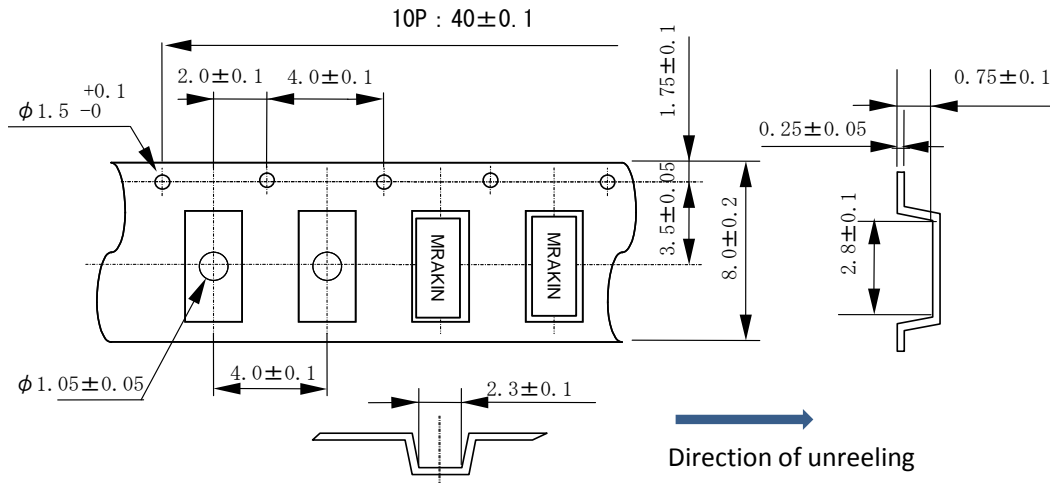
Subject to EIA-481 & IEC-60286

(1) Tape dimensions TE0804L

Material of the Carrier Tape : PS

Material of the Top Tape : PET+PE

Unit: mm

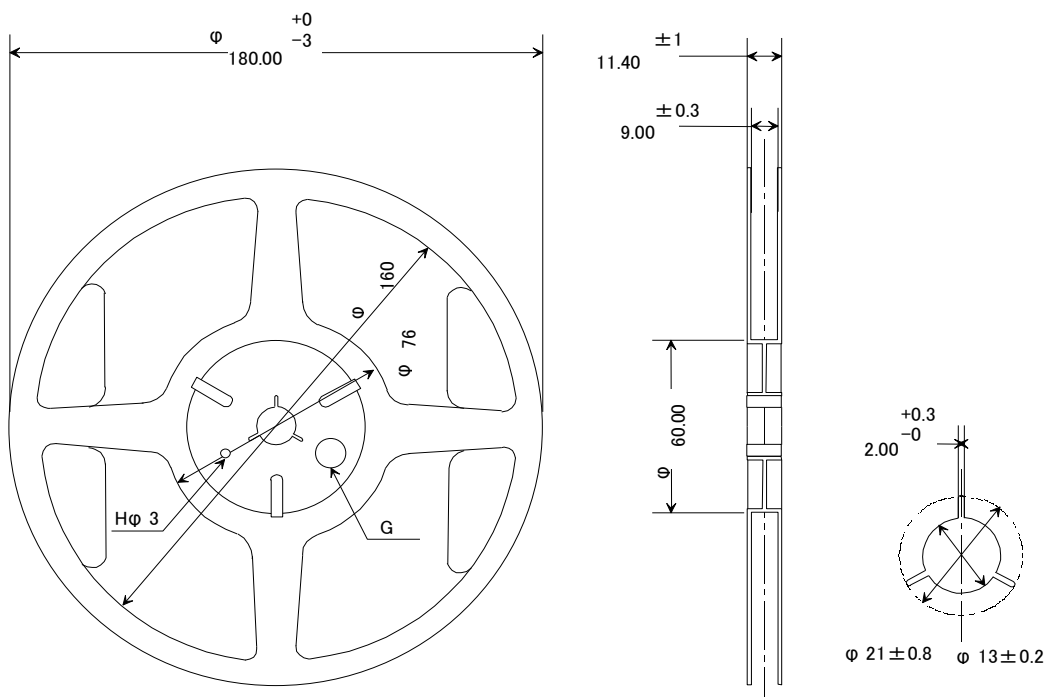


(2) Reel dimensions

Center material : PS

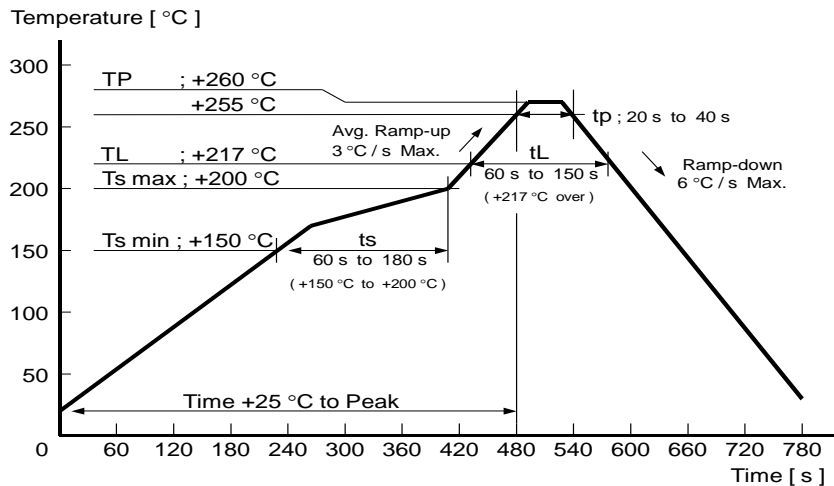
Material of the Reel : PS

Unit: mm



## 6. Reflow profile

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



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  - / Fire work equipment and security equipment
  - / Traffic control equipment
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