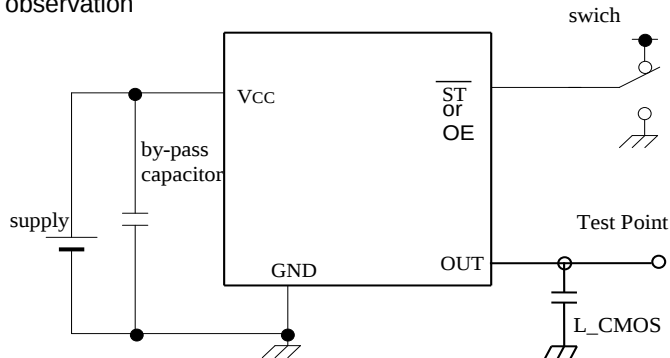
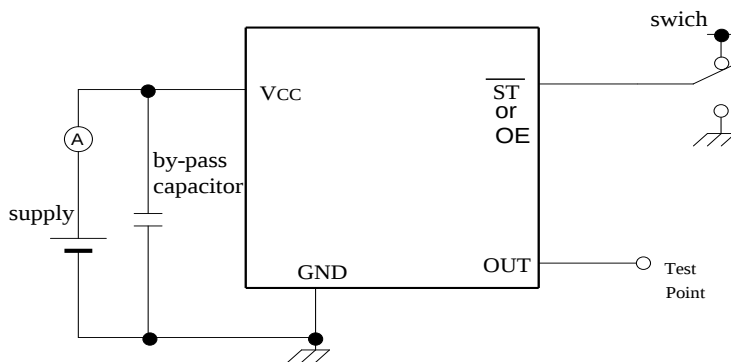


#### 4. Test circuit

##### 1) Waveform observation



##### 2) Current consumption



\*Current consumption under the disable function should be = GND.

##### 3) Condition

###### (1) Oscilloscope

- Band width should be minimum 5 times higher (wider) than measurement frequency.
- Probe earth should be placed closely from test point and lead length should be as short as possible.

\* Recommendable to use miniature socket. (Don't use earth lead.)

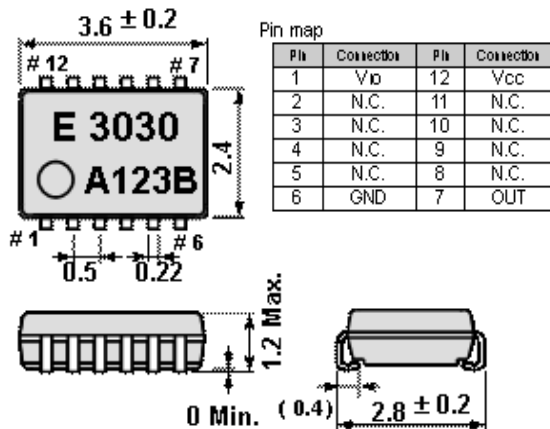
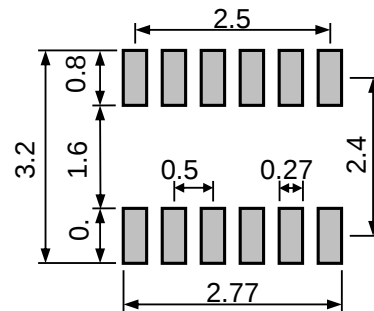
###### (2) L\_CMOS also includes probe capacitance.

###### (3) By-pass capacitor (0.01 mF to 0.1 mF) is placed closely between VCC and GND.

###### (4) Use the current meter whose internal impedance value is small.

###### (5) Power supply

- Start up time (0 %VCC @ 90 %VCC) of power source should be more than 150 ms.
- Impedance of power supply should be as lowest as possible.

**5.External dimensions (Unit: mm)****6.Footprint(Recommended) (Unit: mm)**

To maintain stable operation, provide a 0.01μF to 0.1μF by-pass capacitor at a location as near as possible to the power source terminal of the crystal product (between V<sub>CC</sub> - GND).

**7.Reflow profile**

Pre Heating Temperature

Tp1 ~ Tp2 = + 170 °C

Heating Temperature

T<sub>Mlt</sub> = + 220 °C

Peak Temperature

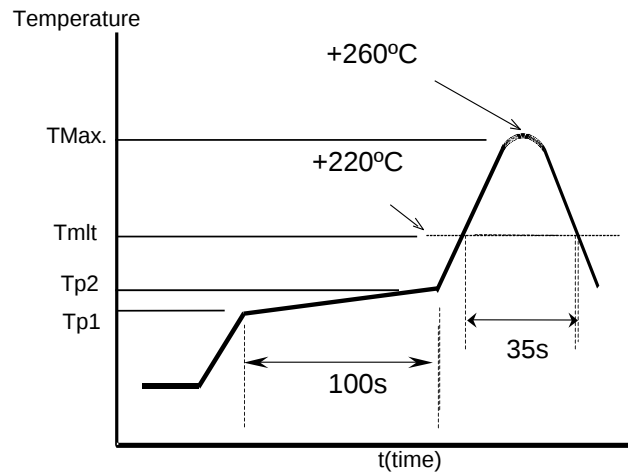
T<sub>Max.</sub> = + 260 °C

Point of measuring

In case of Solder ability

Terminal.

In case of Resistance to soldering heat  
Surface.

**8.Packing information**

[ 1 ] Product number last 2 digits code(xx) description

The recommended code is "00"

Q3102LC020005xx

| Code | Condition                    | Code | Condition      |
|------|------------------------------|------|----------------|
| 01   | Any Q'ty vinyl bag(Tape cut) | 13   | 500pcs / Reel  |
| 11   | Any Q'ty / Reel              | 14   | 1000pcs / Reel |
| 12   | 250pcs / Reel                | 00   | 2000pcs / Reel |

## [ 2 ] Taping specification

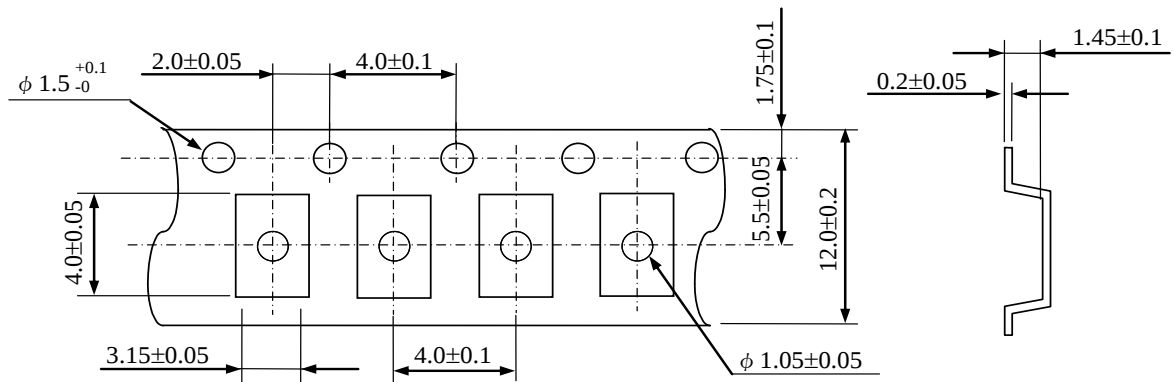
Subject to EIA-481 &amp; IEC-60286

## (1) Tape dimensions

Material of the Carrier Tape : PS

Material of the Top Tape : PET+PE

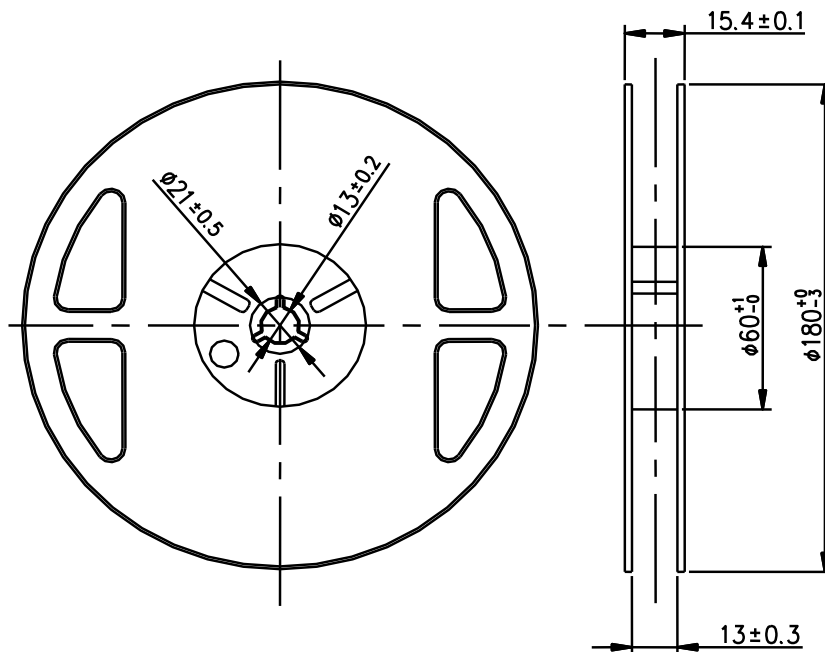
Unit: mm



## (2) Reel dimensions

Center material : PS

Material of the Reel : PS



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  - / Fire work equipment and security equipment
  - / Traffic control equipment
  - / And others requiring equivalent reliability.

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