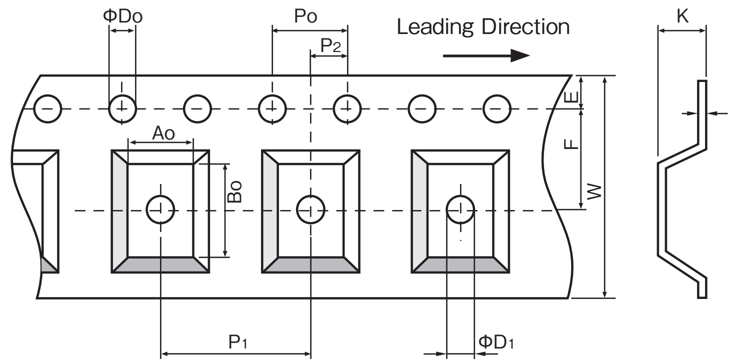
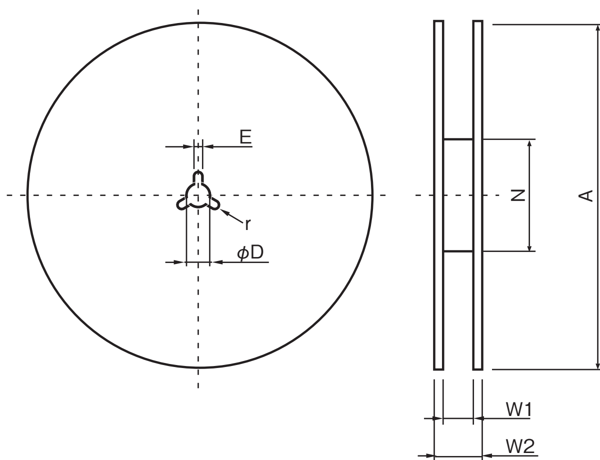
## ◆ CARRIER TAPE DIMENSIONS




| Chip size | Taping code | Dimensions [mm] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ao ±0.1 | Bo ±0.1 | W ±0.2 | F ±0.05 | E ±0.1 | P1 ±0.1 | P2 ±0.05 | Po ±0.1 | ϕDo ±0.1 | ϕD1 +0.2/-0 | K ±0.1 | T ±0.05 |
| 1608 | Y 1 | 1.1 | 1.9 | 8.0 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | — | 0.8 | 0.20 |
| 2012 | Z 1 | 1.45 | 2.25 | 8.0 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | 1.0 | 1.0 | 0.25 |
| | Z 2 | | | | | | | | | | | 1.3 | 0.25 |
| 3216 1632 | A 1 | 1.9 | 3.5 | 8.0 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | 1.1 | 1.4 | 0.30 |
| | A 2 | | | | | | | | | | | 1.8 | 0.30 |
| 3225 | B 1 | 2.8 | 3.5 | 8.0 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | 1.5 | 1.0 | 1.8 | 0.30 |
| | B 2 | | | | | | | | | | | 2.2 | 0.30 |
| | B 3 | | | | | | | | | | | 2.4 | 0.30 |
| 4532 3245 | C 1 | 3.6 | 4.9 | 12.0 | 5.5 | 1.75 | 8.0 | 2.0 | 4.0 | 1.5 | 1.5 | 1.8 | 0.30 |
| | C 2 | | | | | | | | | | | 2.2 | 0.30 |
| | C 3 | | | | | | | | | | | 2.4 | 0.30 |
| | C 4 | | | | | | | | | | | 3.0 | 0.30 |
| 5750 | D 1 | 5.3 | 6.0 | 12.0 | 5.5 | 1.75 | 8.0 | 2.0 | 4.0 | 1.5 | 1.6 | 2.2 | 0.30 |
| | D 2 | | | | | | | | | | | 2.6 | 0.30 |
| | D 3 | | | | | | | | | | | 3.0 | 0.30 |

## ◆ REEL DIMENSIONS



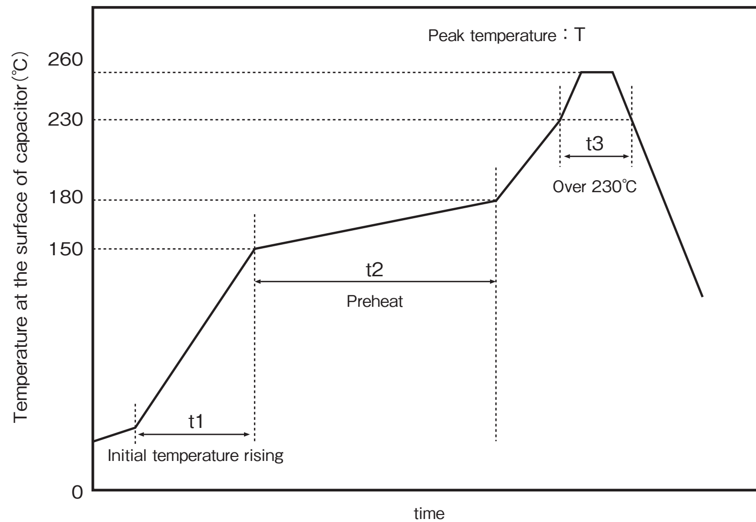

| Chip size | Taping code | Reel size | Quantity |
|---|---|---|---|
| 1608 | Y1 | ϕ180mm | 4,000pcs/reel |
| 2012 | Z1, Z2 | ϕ180mm | 3,000pcs/reel |
| 3216 1632 | A1 | ϕ180mm | 3,000pcs/reel |
| | A2 | ϕ180mm | 2,000pcs/reel |
| 3225 | B1, B2, B3 | ϕ180mm | 2,000pcs/reel |
| 4532 3245 | C1, C2 | ϕ180mm | 1,000pcs/reel |
| | C3, C4 | ϕ180mm | 500pcs/reel |
| 5750 | D1, D2 | ϕ180mm | 1,000pcs/reel |
| | D3, D4 | ϕ180mm | 500pcs/reel |

| Taping code | Dimensions [mm] | | | | | | |
|---|---|---|---|---|---|---|---|
| | A ±1.0 | N ±1.0 | W1 ±1.0 | W2 ±1.0 | ϕD ±0.2 | E ±0.5 | r ±0.2 |
| Y, Z, A, B | 180 | 60 | 9.5 | 13.1 | 13.0 | 2.0 | 1.0 |
| C, D | 180 | 60 | 13.5 | 18.5 | 13.0 | 2.0 | 1.0 |

# ●SOLDERING CONDITIONS

## ◆REFLOW SOLDERING CONDITIONS

**MU series/MS series/MR series/ST series**




| Period of initial temperature rising : t1 | Period of preheat : t2 | Period over 230℃ : t3 | Peak temperature : T |
|---|---|---|---|
| (room temperature) ~150℃ 3℃/ sec MAX | 150~180℃ 60~120 sec | 30~60 sec | 260℃ MAX |

※Temperature is measured at the surface of capacitor.

1) Holding time at the peak temperature should be as short as possible.

2) Reflow soldering cycle is limited to two (2). The second soldering should be done after the capacitor itself has returned to room temperature.

3) Please consult us in advance if your reflow soldering condition is different from recommended condition.

## ◆FLOW SOLDERING CONDITIONS

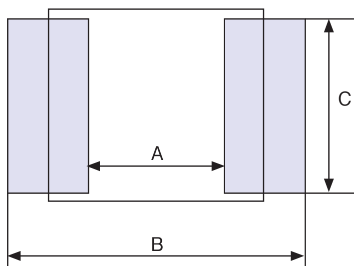
**MU series/MS series/MR series/LDT series**

Please consult us about flow soldering conditions.

## ◆RECOMMENDED LAND SIZE

**MU series/MS series/MR series/ST series**

For designing land size, refer to the following recommended land size.
However, in flow soldering, please enlarge B dimension about 0.4 to 0.6 mm.
Please consult us in advance if your land desing is vastly different from recommended land size.




| Chip size | Dimensions (mm) | | |
|---|---|---|---|
| | A | B | C |
| 1608 | 0.5 | 2.0 | 0.7 |
| 2012 | 0.8 | 2.4 | 1.1 |
| 3216 | 1.8 | 3.6 | 1.4 |
| 3225 | 1.8 | 3.6 | 2.3 |
| 4532 | 2.7 | 5.7 | 3.0 |
| 5750 | 3.5 | 7.8 | 4.5 |
| 1632 | 0.5 | 2.2 | 3.0 |
| 3245 | 1.8 | 3.6 | 4.1 |