

# DATA SHEET

## **SMD wideband chokes EMI-suppression products**

Supersedes data of September 2004

2008 Sep 01

**SMD WIDEBAND CHOKES**

**SMD wideband choke WBS1.5-5/4.8/10**

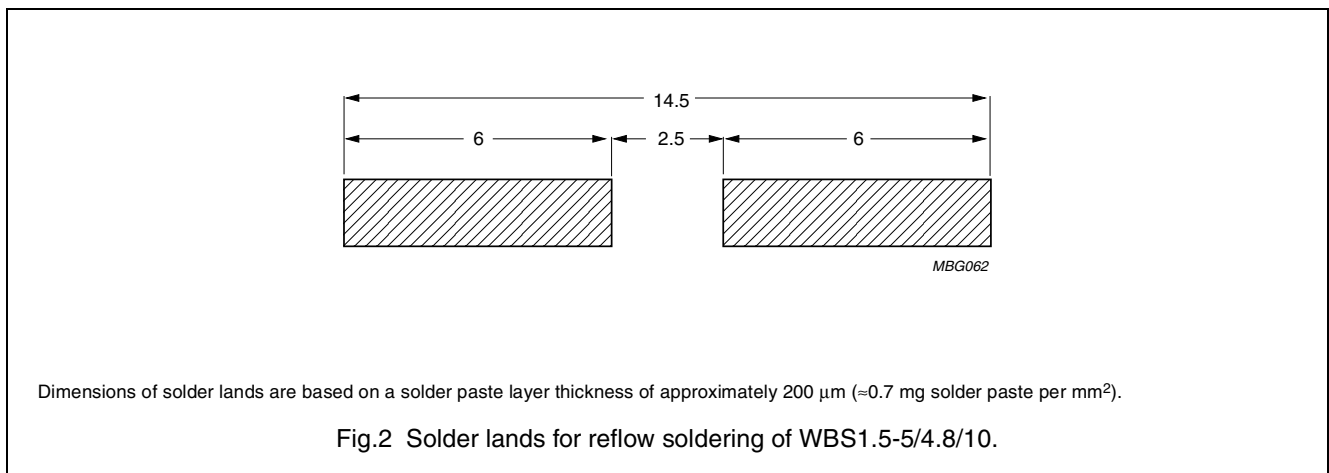
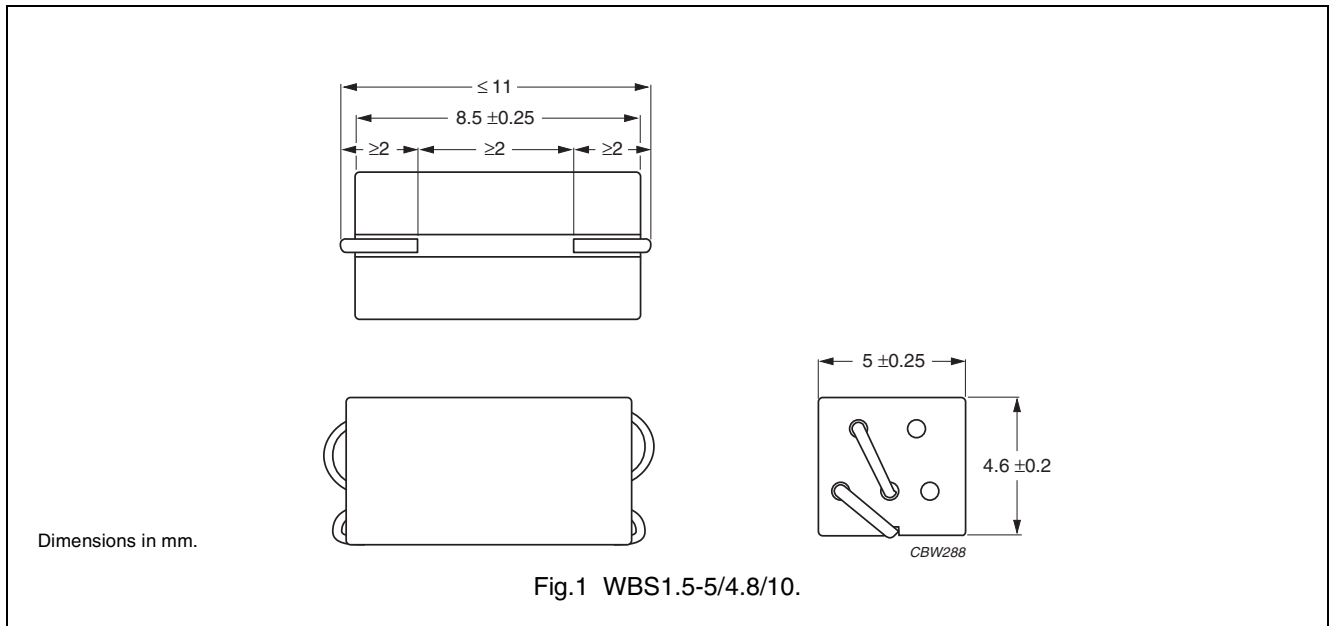
| ITEM           | SPECIFICATION                               |
|----------------|---|
| Strip material | copper (Cu), tin (Sn) plated                |
| Solderability  | "IEC 60068-2-58", Part 2, Test Ta, method 1 |
| Mass           | ≈0.9 g                                      |
| Taping method  | "IEC 60286-3" and "EIA 481-2"               |

**Grades, parameters and type numbers; see Fig.1**

| GRADE | $ Z_{typ} ^{(1)}$<br>( $\Omega$ ) | at f<br>(MHz) | TYPE NUMBER         |
|-------|-----------------------------------|---------------|---------------------|
| 3S4   | 230                               | 10            | WBS1.5-5/4.8/10-3S4 |
|       | 400                               | 50            |                     |
|       | 430                               | 100           |                     |
| 4B1   | 275                               | 25            | WBS1.5-5/4.8/10-4B1 |
|       | 500                               | 100           |                     |
|       | 350                               | 300           |                     |

**Note**

1. Typical values,  $|Z|_{min}$  is -20%.



EMI-suppression products

SMD wideband chokes

SMD wideband choke WBS2.5-5/4.8/10

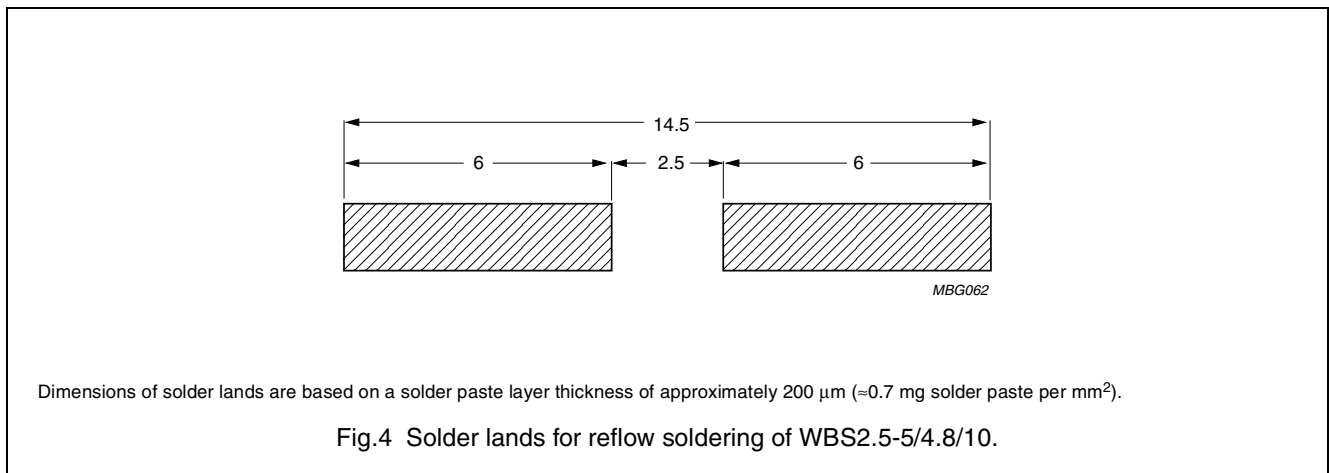
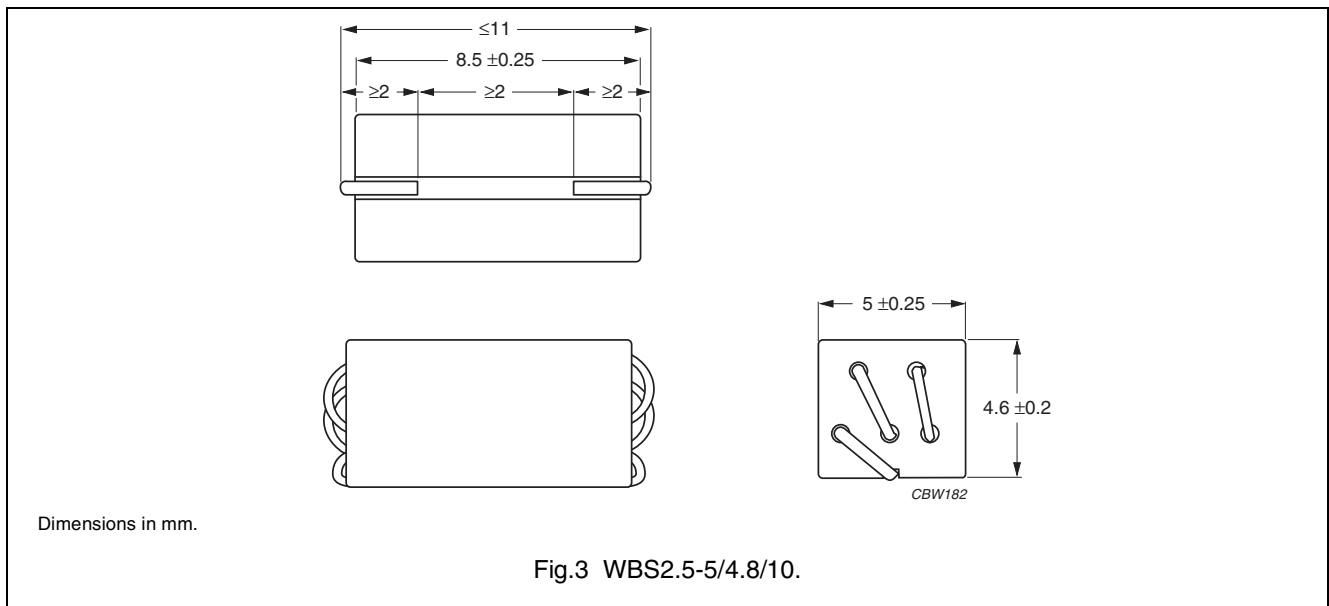
| ITEM           | SPECIFICATION                               |
|----------------|---|
| Strip material | copper (Cu), tin (Sn) plated                |
| Solderability  | "IEC 60068-2-58", Part 2, Test Ta, method 1 |
| Mass           | ≈0.9 g                                      |
| Taping method  | "IEC 60286-3" and "EIA 481-2"               |

Grades, parameters and type numbers; see Fig.3

| GRADE | $ Z_{typ} ^{(1)}$<br>( $\Omega$ ) | at f<br>(MHz) | TYPE NUMBER         |
|-------|-----------------------------------|---------------|---------------------|
| 3S4   | 300                               | 10            | WBS2.5-5/4.8/10-3S4 |
|       | 625                               | 50            |                     |
|       | 600                               | 100           |                     |
| 4B1   | 485                               | 25            | WBS2.5-5/4.8/10-4B1 |
|       | 850                               | 100           |                     |
|       | 350                               | 300           |                     |

Note

1. Typical values,  $|Z|_{min}$  is -20%.



Soldering profiles

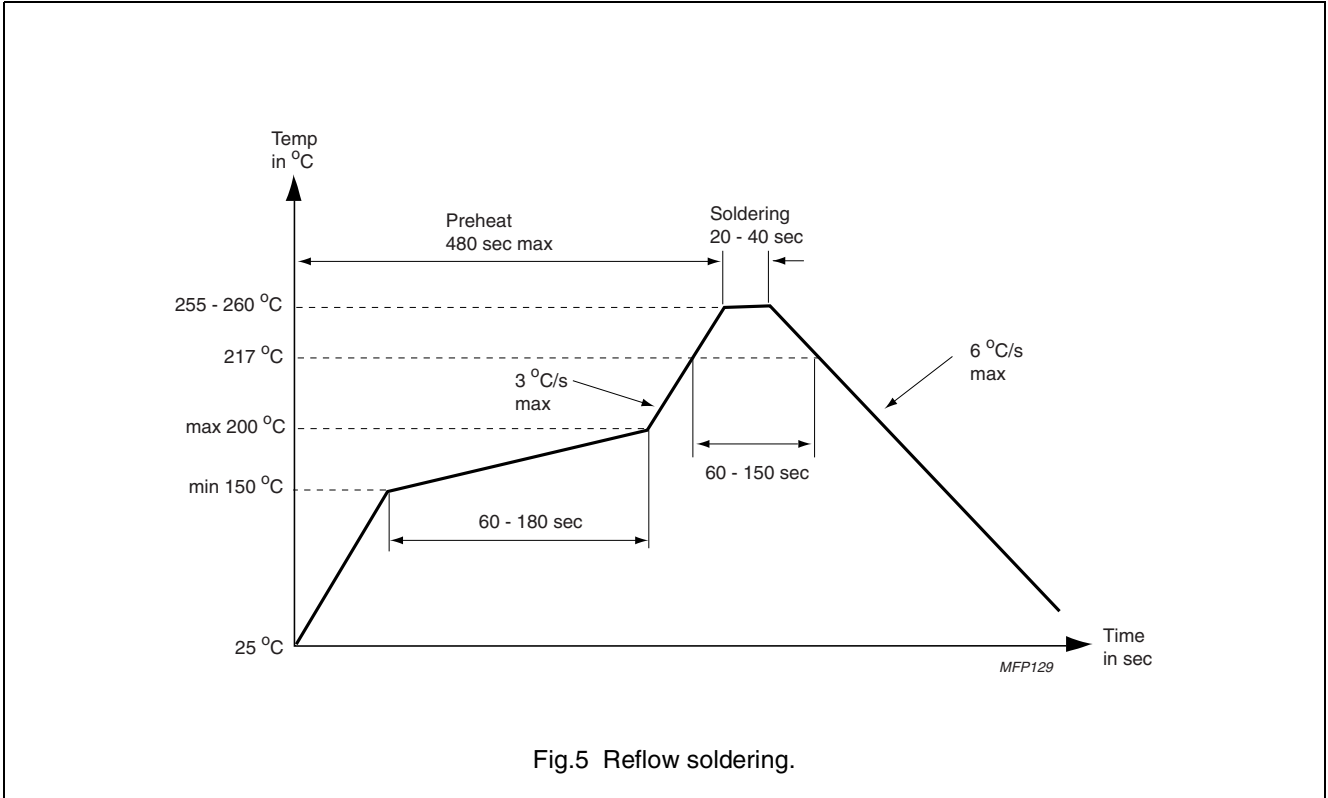


Fig.5 Reflow soldering.

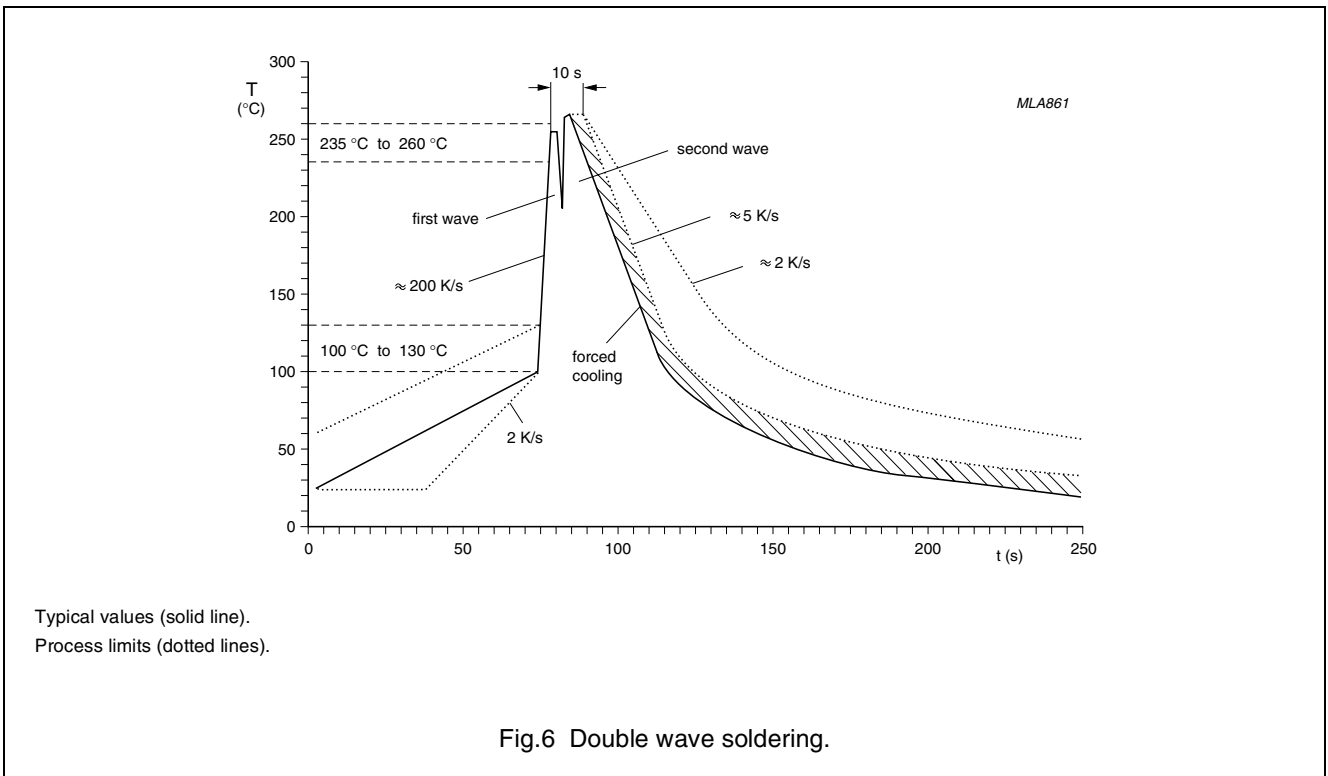
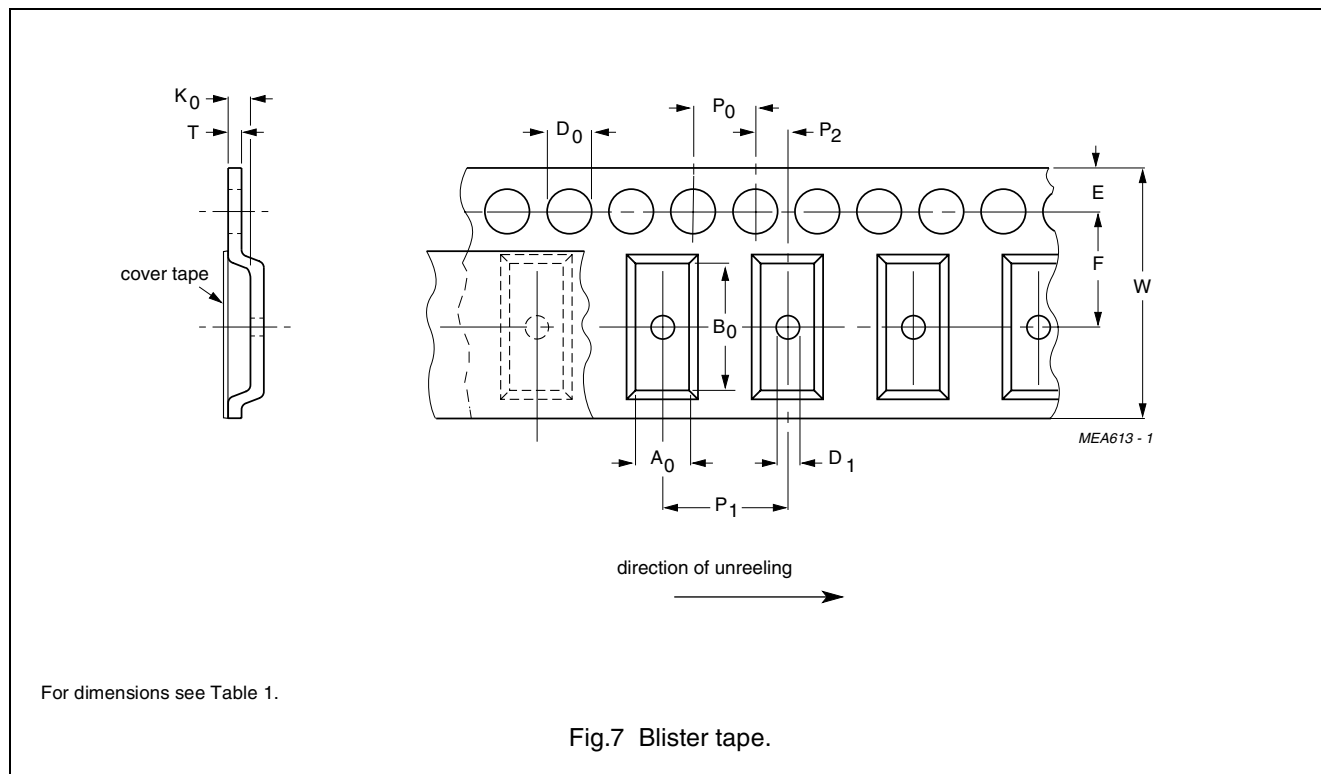


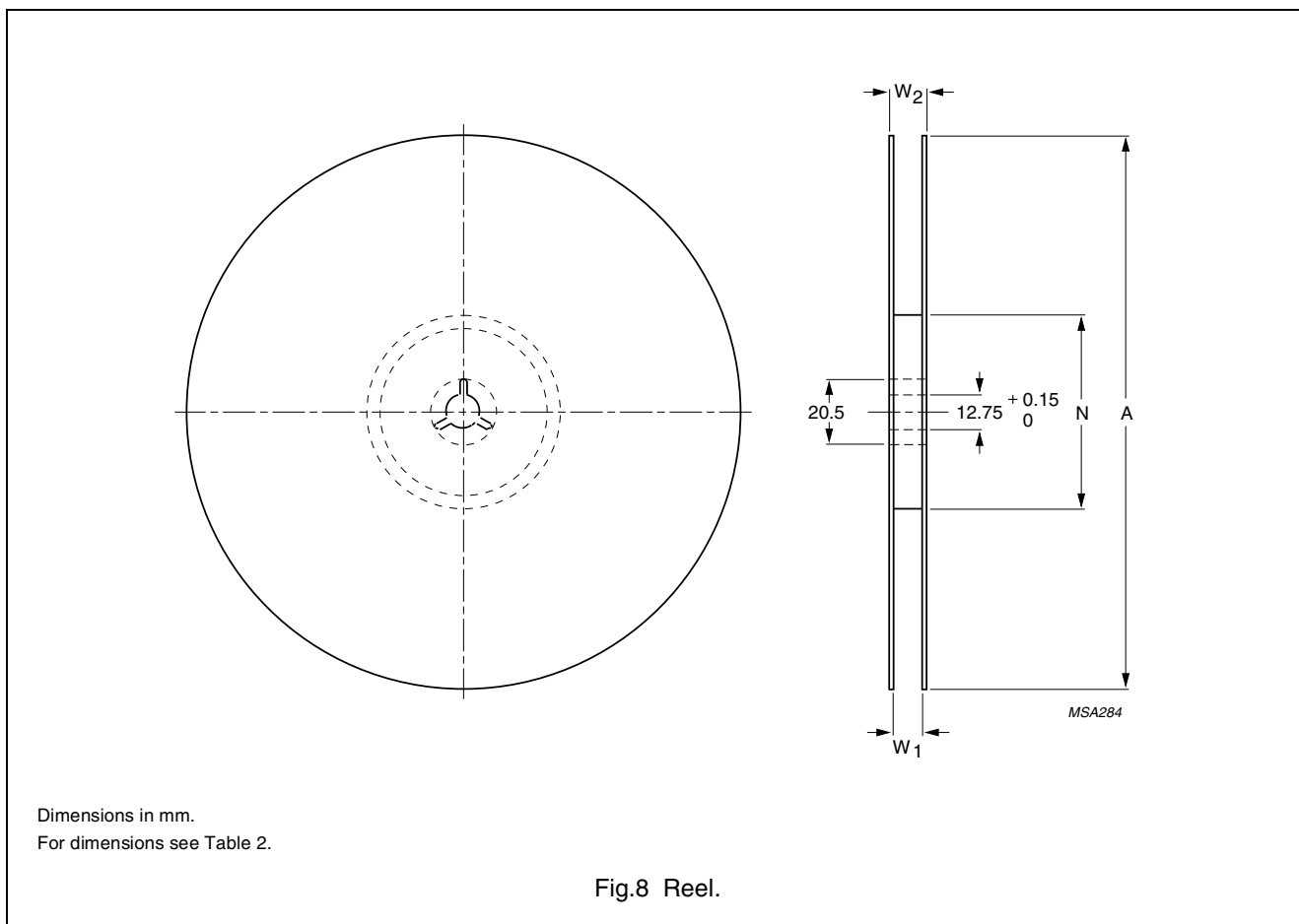
Fig.6 Double wave soldering.

**BLISTER TAPE AND REEL DIMENSIONS**



**Table 1** Physical dimensions of blister tape; see Fig.7

| SIZE  | DIMENSIONS (mm) |                 |
|-------|-----------------|-----------------|
|       | WBS1.5-5/4.8/10 | WBS2.5-5/4.8/10 |
| $A_0$ | 5.51            | 5.51            |
| $B_0$ | 11              | 11              |
| $K_0$ | 5.03            | 5.03            |
| $T$   | 0.36            | 0.36            |
| $W$   | 24              | 24              |
| $E$   | 1.75            | 1.75            |
| $F$   | 11.5            | 11.5            |
| $D_0$ | 1.5             | 1.5             |
| $D_1$ | $\geq 1.5$      | $\geq 1.5$      |
| $P_0$ | 4.0             | 4.0             |
| $P_1$ | 8.0             | 8.0             |
| $P_2$ | 2.0             | 2.0             |



**Table 2** Reel dimensions; see Fig.8

| SIZE | DIMENSIONS (mm) |        |                |                |
|------|-----------------|--------|----------------|----------------|
|      | A               | N      | W <sub>1</sub> | W <sub>2</sub> |
| 24   | 330             | 100 ±5 | 24.4           | ≤28.4          |

## EMI-suppression products

## SMD wideband chokes




## DATA SHEET STATUS DEFINITIONS

| DATA SHEET STATUS         | PRODUCT STATUS | DEFINITIONS  |
|---------------------------|----------------|--|
| Preliminary specification | Development    | This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.     |
| Product specification     | Production     | This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product. |

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## PRODUCT STATUS DEFINITIONS

| STATUS           | INDICATION  | DEFINITION   |
|------------------|---|--|
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| <b>Design-in</b> |  | These products are recommended for new designs.  |
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