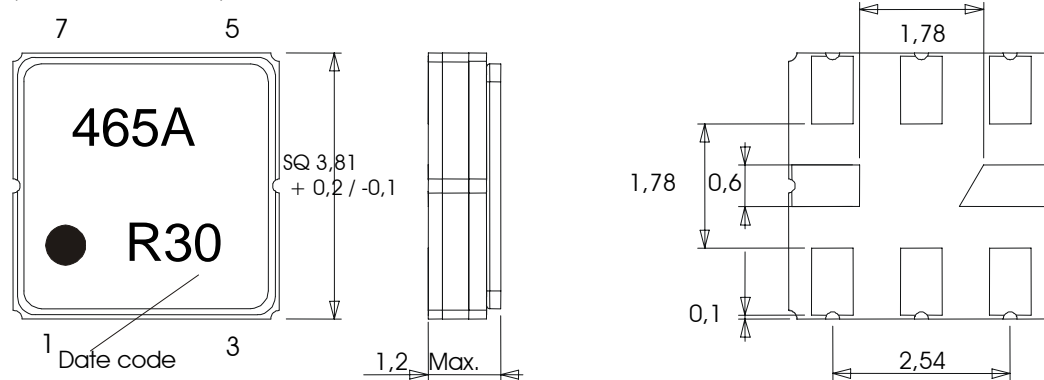




### Construction, pin configuration and 50 Ω - matching network

(All dimensions in mm)



Pin 1 Ground  
 Pin 2 Input  
 Pin 3 Ground  
 Pin 4 Package Ground

Pin 5 Ground  
 Pin 6 Output  
 Pin 7 Ground  
 Pin 8 Package ground

date code: year + week  
 N 2001  
 P 2002  
 R 2003  
 ...

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**Stability Characteristics**

After the following tests the filter shall meet the whole specification:

1. Shock: 500g, 18 ms, half sine wave, 3 shocks each plane;  
DIN IEC 68 T2 - 27
2. Vibration: 10 Hz to 500 Hz, 0,35 mm or 5g respectively, 1 octave per min, 10 cycles per plan, 3 plans;  
DIN IEC 68 T2 - 6
3. Change of temperature: -55 °C to 125°C / 30 min. each / 10 cycles  
DIN IEC 68 part 2 – 14 Test N
4. Resistance to solder heat (reflow): reflow possible: twice max.;;  
for temperature conditions, please refer to the attached "Air reflow temperature conditions" on page 4;

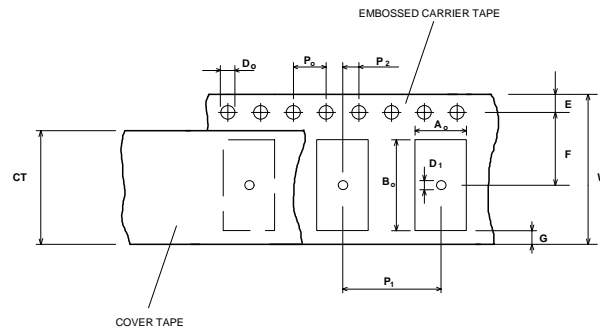
**Packing**

Tape & Reel: IEC 286 - 3, with exception of value for N and minimum bending radius;  
tape type II, embossed carrier tape with top cover tape on the upper side;

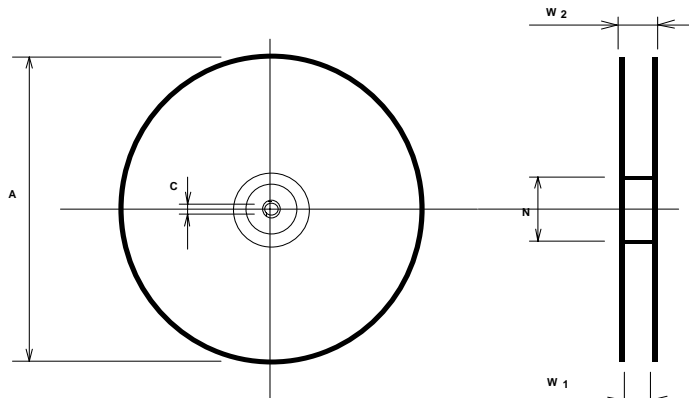
max. pieces of filters per reel: 3000  
reel of empty components at start: min 300 mm  
reel of empty components at start including leader: min 500 mm  
trailer: min 300 mm

**Tape (all dimensions in mm)**

|         |              |
|---------|--------------|
| W       | : 12 ± 0,3   |
| Po      | : 4 ± 0,1    |
| Do      | : 1,5 + 0,1  |
| E       | : 1,75 ± 0,1 |
| F       | : 5,5 ± 0,05 |
| G (min) | : 0,75       |
| P2      | : 2 ± 0,05   |
| P1      | : 8 ± 0,1    |
| D1(min) | : 1,5        |
| Ao      | : 4,3 ± 0,1  |
| Bo      | : 4,3 ± 0,1  |
| CT      | : 9,5 ± 0,1  |

**Reel (all dimensions in mm):**

|          |                |
|----------|----------------|
| A        | : 330          |
| W1       | : 12,4 + 2,0   |
| W2 (max) | : 18,4         |
| N (min)  | : 50           |
| C        | : 13 +0,5/-0,2 |



The minimum bending radius is 45 mm. The mounting surface of the filters faces the bottom side of the embossed carrier tape. Markings on the filters can be read if the upper side of the carrier tape is regarded with the sprocket holes on its right.

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## Air reflow temperature conditions

## 1st and 2nd air reflow profile

|                     |                     |                      |                  |
|---------------------|---------------------|----------------------|------------------|
| <b>Name:</b>        | pre-heating periods | main-heating periods | peak temperature |
| <b>Temperature:</b> | 150 °C - 170 °C     | over 200 °C          | 255 °C ± 5 °C    |
| <b>Time:</b>        | 60 sec. - 90 sec.   | 20 sec. - 25 sec.    |                  |

## Chip-mount air reflow profile

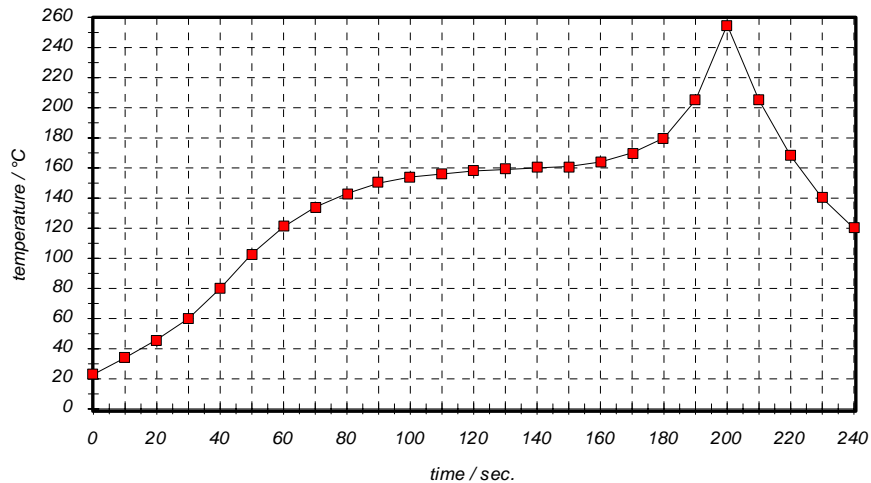


Table for temperature vs. time during the air reflow process

Tolerance of temperatures: ± 5 °C

| time / sec. | temperature / °C | time / sec. | temperature / °C |
|-------------|------------------|-------------|------------------|
| 0           | 23               | 140         | 160              |
| 10          | 34               | 150         | 161              |
| 20          | 46               | 160         | 164              |
| 30          | 60               | 170         | 170              |
| 40          | 80               | 180         | 180              |
| 50          | 103              | 190         | 205              |
| 60          | 121              | 195         | 230              |
| 70          | 134              | 200         | 255              |
| 80          | 143              | 205         | 230              |
| 90          | 150              | 210         | 205              |
| 100         | 154              | 215         | 180              |
| 110         | 156              | 220         | 165              |
| 120         | 158              | 230         | 140              |
| 130         | 159              | 240         | 120              |

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**History**

| <b>Version</b> | <b>Reason of Changes</b>                                       | <b>Name</b> | <b>Date</b> |
|----------------|--|-------------|-------------|
| 1.0            | - Generation of development specification                      | Dr. Sabah   | 17.07.2003  |
| 1.1            | - Generation of filter specification and add of typical values | Dr. Sabah   | 25.07.2003  |

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