1. Packing method

![Reel pack for SMD](image)

Fig. 1. Reel pack for SMD

Table 1. Dimensions and quantities

<table>
<thead>
<tr>
<th>Package version</th>
<th>12 NC ending</th>
<th>Orderable part number ending</th>
<th>Reel dimensions $d \times w$ (mm)$\text{[1]}$</th>
<th>SPQ/PQ (pcs)$\text{[2]}$</th>
<th>Reels per box</th>
<th>Outer box dimensions $l \times w \times h$ (mm)$\text{[3]}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOT23</td>
<td>215</td>
<td>215 or R</td>
<td>180 x 8</td>
<td>3000</td>
<td>1</td>
<td>185 x 185 x 17</td>
</tr>
</tbody>
</table>

[1] $d =$ reel diameter; $w =$ tape width.
2. Product orientation

<table>
<thead>
<tr>
<th>Q1/T1</th>
<th>Q2/T3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3/T4</td>
<td>Q4/T2</td>
</tr>
</tbody>
</table>

Tape pocket quadrants

Pin 1 is in quadrant Q3/T4

Fig. 2. Product orientation in carrier tape

3. Carrier tape dimensions

Fig. 3. Plastic/Embossed carrier tape

Table 2. Carrier tape dimensions

<table>
<thead>
<tr>
<th>A₀ (mm)</th>
<th>B₀ (mm)</th>
<th>K₀ (mm)</th>
<th>T (mm)</th>
<th>P₁ (mm)</th>
<th>W (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 ± 0.2</td>
<td>2.7 + 0.2 / - 0.1</td>
<td>1.20 + 0.12 / - 0.15</td>
<td>0.20 + 0.02 / - 0.04</td>
<td>4.0 ± 0.1</td>
<td>8.0 + 0.3 / - 0.1</td>
</tr>
</tbody>
</table>
4. Reel dimensions

Fig. 4. Schematic view of reel

Table 3. Reel dimensions

<table>
<thead>
<tr>
<th>A [nom] (mm)</th>
<th>W2 [max] (mm)</th>
<th>B [min] (mm)</th>
<th>C [min] (mm)</th>
<th>D [min] (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>14.4</td>
<td>1.5</td>
<td>12.8</td>
<td>20.2</td>
</tr>
</tbody>
</table>
5. Barcode label

Fixed text
Country of origin
Packing unit (PQ) identification
2nd traceability lot number*
2nd (youngest) date code*
2nd quantity*
Traceability lot number
Date code
With linear barcode
Quantity
With linear barcode
Type number
NEXPERIA 12NC
With linear barcode
Optional product information*
Re-approval date code*
Origin code
Product Manufacturing Code
MSL at the Peak Body solder temperature with tin/lead*
MSL at the higher lead-free Peak Body Temperature*
2D matrix with all data (including the data identifiers)
Additional info if halogen free product
Additional info on RoHS
Lead-free symbol

Fig. 5. Example of typical box information barcode label

Fig. 6. Example of typical reel information barcode label

Table 4. Barcode label dimensions

<table>
<thead>
<tr>
<th>Box barcode label</th>
<th>Reel barcode label</th>
</tr>
</thead>
<tbody>
<tr>
<td>l × w (mm)</td>
<td>l × w (mm)</td>
</tr>
<tr>
<td>100 × 75</td>
<td>36 × 75</td>
</tr>
</tbody>
</table>

6. Revision history

Table 5. Revision history

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Release date</th>
<th>Modifications</th>
<th>Supersedes</th>
</tr>
</thead>
</table>
| SOT23_215 v.2    | 20200420     | • The format of this packing information document has been redesigned to comply with the identity guidelines of Nexperia.  
• **Fig. 1**: Updated packing method drawing.  
• **Table 1**: Outer box dimensions updated.  
• **Table 2**: Tolerances added to carrier tape dimensions.  
• **Section 4**: Added reel drawing and dimensions.  
• **Section 5**: Added barcode label drawing and dimensions.  
• Legal texts have been adapted to the new company name where appropriate. | SOT23_215 v.1 |
| SOT23_215 v.1    | 20121115     | -                                                                             | -           |
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