

# Tape and Reel Standards

## Taping of RF Transistors and Diodes

### Taping of SMT Devices

Vishay's Transistors in SMD packages are available in an antistatic 8 mm blister tape (in accordance with DIN IEC 268-3) for automatic component insertion. The blister tape is a plastic strip with impressed component cavities, covered by a top tape.

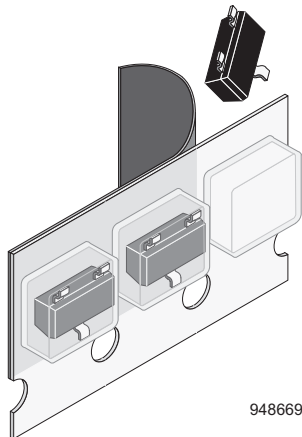


Figure 1. Blister tape with SOT-23 packages

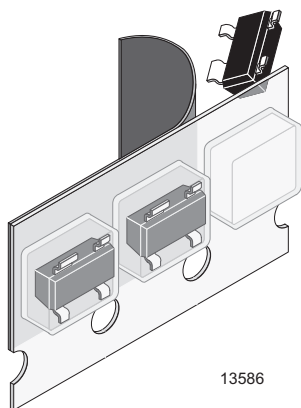


Figure 2. Blister tape with SOT-143 packages

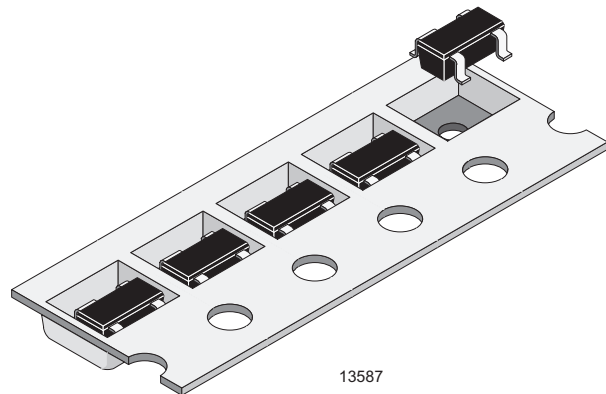


Figure 3. Blister tape with SOT-143R packages

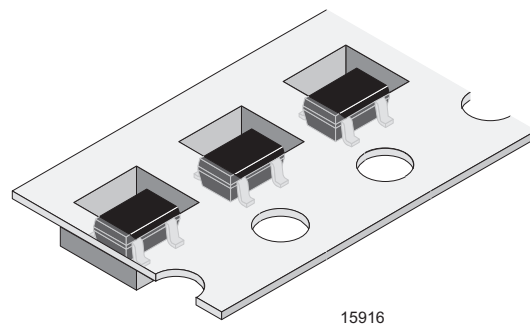


Figure 4. Blister tape with SOT-343 packages

**Missing Devices**

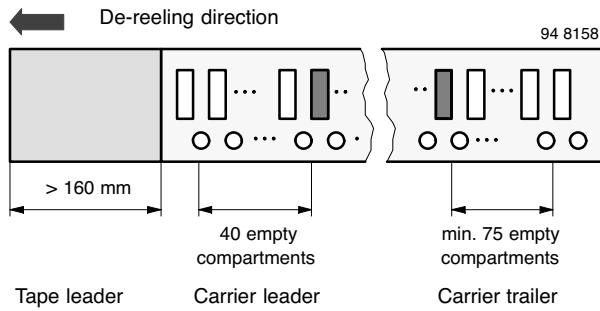


Figure 5. Beginning and end of reel

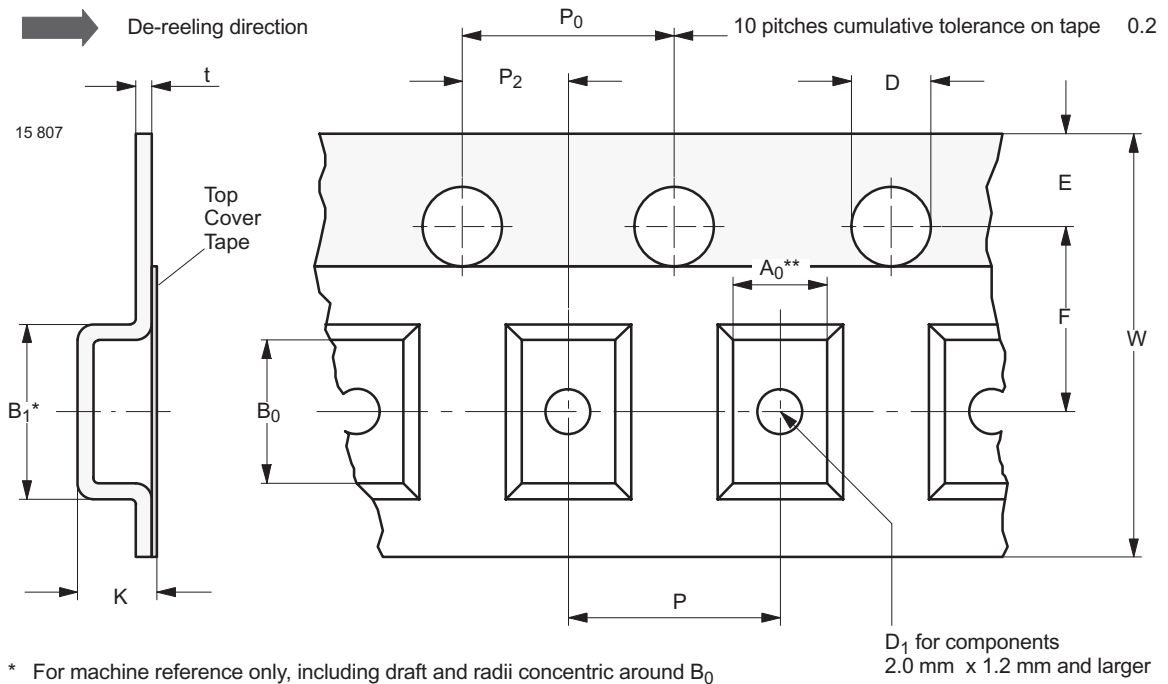
A maximum of 0.5 % of the total number of components per reel may be missing, exclusively missing components at the beginning and at the end of the reel. A maximum of three consecutive components may be missing, provided this gap is followed by six consecutive components.

The tape leader is at least 230 mm and is followed by a carrier tape leader with at least 40 empty compartments. The tape leader may include the carrier tape as long as the cover tape is not connected to the carrier tape.

The last component is followed by a carrier tape trailer with at least 75 empty compartments and sealed with cover tape.

**Number of Components**

Quantity per reel: 300 pcs or 10000 pcs



\* For machine reference only, including draft and radii concentric around  $B_0$   
 \*\* See note 1 and table

Figure 6. Tape dimensions SOT-23, SOT-143, SOT-323, SOT-343 and SOT-363

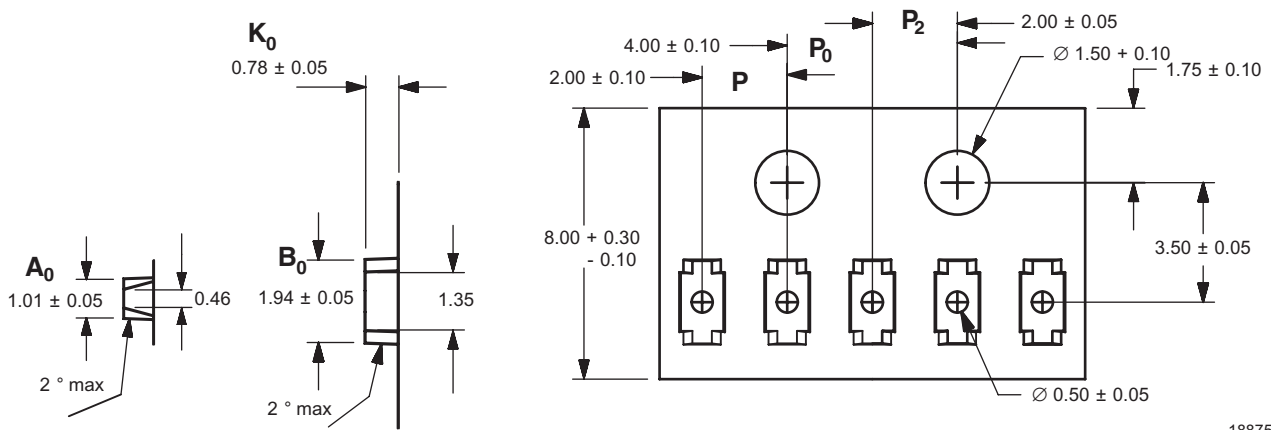
**Embossed Carrier Tape Specification ( 8 mm Tape )**  
**8 mm Embossed Tape Dimensions**  
 ( All dimensions in mm )

Tape Size	D	E	P <sub>0</sub>	t	A <sub>0</sub> B <sub>0</sub> K <sub>0</sub>	Constant Dimensions
8 mm	1.5 + 0.1	1.75 ± 0.1	4.0 ± 0.1	0.3 max.	see next table	

Tape Size	D <sub>1</sub> Min	F	W	Θ	Constant Dimensions
8 mm	1.0	3.5 (± 0.1)	8.0 (± 0.30)	< 15°	

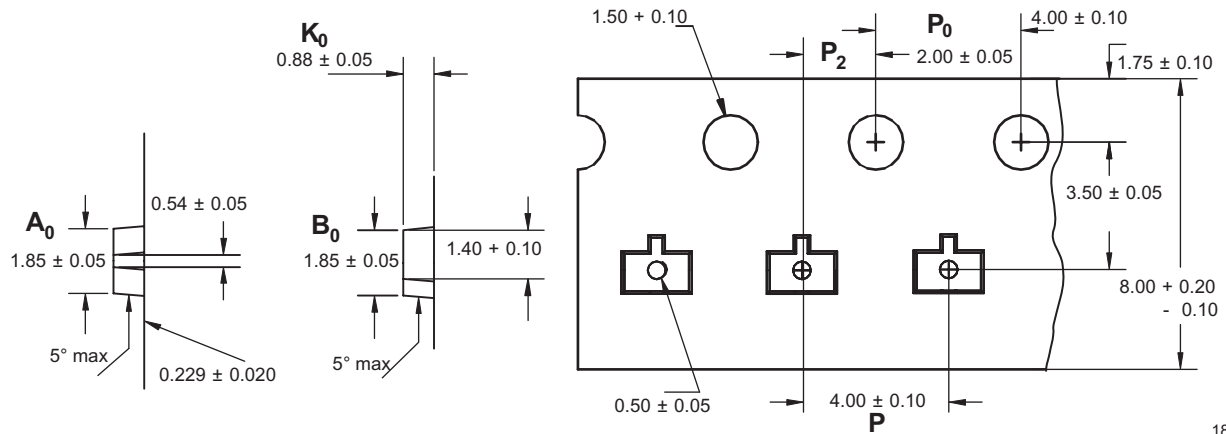
Tape Size	Package	A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	P <sub>2</sub>	P
8 mm	SOD-523	1.01 ± 0.05	1.94 ± 0.05	0.78 ± 0.05	2.0 ± 0.05	2.0 ± 0.1
8 mm	SOT23	3.15 ± 0.2	2.65 ± 0.2	1.25 ± 0.1	2.0 ± 0.1	4.0 ± 0.1
8 mm	SOT143	3.15 ± 0.2	2.65 ± 0.2	1.25 ± 0.1	2.0 ± 0.1	4.0 ± 0.1
8 mm	SOT323	2.1 ± 0.1	2.4 ± 0.1	1.15 ± 0.1	2.0 ± 0.05	4.0 ± 0.1
8 mm	SOT343	2.4 ± 0.1	2.4 ± 0.1	1.15 ± 0.1	2.0 ± 0.05	4.0 ± 0.1
8 mm	SOT363	2.4 ± 0.1	2.4 ± 0.1	1.15 ± 0.1	2.0 ± 0.05	4.0 ± 0.1
8 mm	SOT-490	1.85 ± 0.05	1.85 ± 0.05	0.88 ± 0.05	2.0 ± 0.05	4.0 ± 0.1
8 mm	Micro-MELF	1.35 ± 0.1	2.15 ± 0.1	1.3 ± 0.1	2.0 ± 0.05	4.0 ± 0.1
8 mm	Quadro-MELF	1.55 + 0.1	3.6 + 0.1	1.65 + 0.1	2.0 ± 0.05	4.0 ± 0.1
8 mm	Mini-MELF	1.55 + 0.1	3.6 + 0.1	1.65 + 0.1	2.0 ± 0.05	4.0 ± 0.1

Notes: A<sub>0</sub>B<sub>0</sub>K<sub>0</sub> are determined by component size.



18875

Figure 7. Tape dimensions SOD-523



18876

Figure 8. Tape dimensions SOT-490

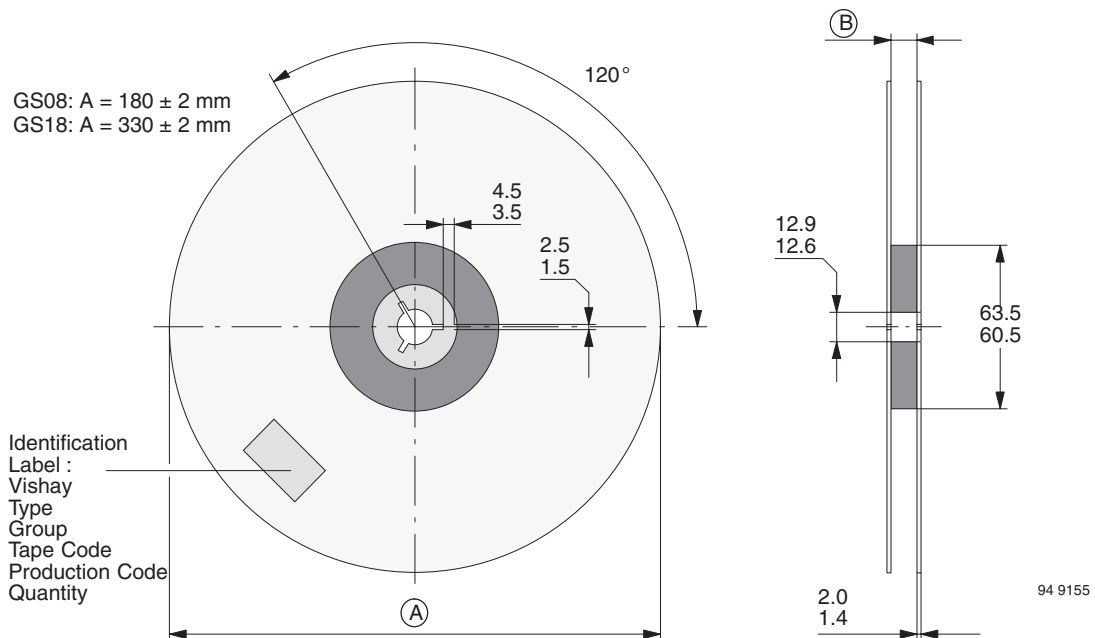


Figure 9. Reel dimensions

### Top Tape Removal Force

The removal force lies between 0.2 N and 1.3 N at a removal speed of 5 mm/s.

In order to prevent components from popping out of the blisters, the cover tape must be pulled off at an angle of 180 °C with regard to the feed direction.

### Ordering Designation

3000 pcs  
 Extension: "GS08"  
 Example: BFQ67-GS08

10000 pcs  
 Extension: "GS18"  
 Example: BFQ67-GS18