

## Tape and Reel Standards for SMD IR Receiver Modules

Vishay Semiconductor SMD IR Receivers are packaged on tape and reel. The following specification is based on IEC publication 286, which takes the industrial requirements for automatic insertion into account.

Absolute maximum ratings, mechanical dimensions, optical and electrical characteristics for taped devices are identical to the basic catalog types and can be found in the specifications for untaped devices.

### PACKAGING

The tapes of components are available on reels. Each reel is marked with labels which contain the following information:

- Vishay
- Type
- Group
- Tape code, normally part of type name
- Production code
- Quantity

### NUMBER OF COMPONENTS

A. Standard SMD: quantity per reel:

- TT, SMD top view package, 1190 pcs
- TR, SMD side view package, 1120 pcs

B. Heimdall: quantity per reel:

- TT, Heimdall top view package, 2200 pcs
- TR, Heimdall side view package, 2300 pcs

C. Heimdall without lens: quantity per reel:

- WTT, top view package, 2200 pcs
- WTR, side view package, 2300 pcs

D. Bugeye: quantity per reel:

- TT, 2500 pcs
- TR, 2500 pcs

E. AP5: quantity per reel:

- TT, 2500 pcs
- TR, not available in this side view

### MISSING COMPONENTS

Up to 3 consecutive components may be missing if the gap is followed by at least 6 components. A maximum of 0.5 % of the components per reel quantity may be missing. At least 5 empty positions are present at the start and the end of the tape to enable tape insertion.

**Tensile strength** of the tape: > 15 N

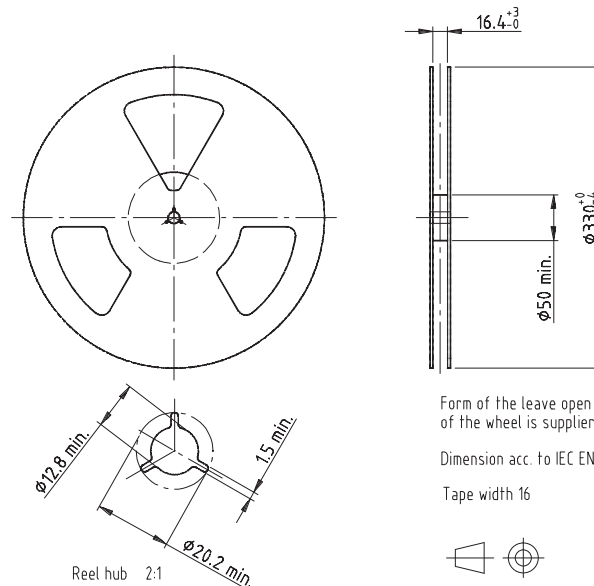
### ORDER DESIGNATION

The type designation of the device is extended by TT for top view or TR for side view.

#### Example:

- TSOP6238TR (reel packing)
- TSOP75238TR (reel packing)
- TSOP75338WTT (reel packing)
- TSOP85438TT (reel packing)
- TSOP85238AP5TR (reel packing)

### REEL DIMENSIONS FOR STANDARD SMD AND HEIMDALL in millimeters



Form of the leave open of the wheel is supplier specific.

Dimension acc. to IEC EN 60 286-3

Tape width 16



Drawing-No.: 9.800-5052.V2-4  
Issue: 1; 07.05.02

16734

### Note

- The body structure of the reel can vary

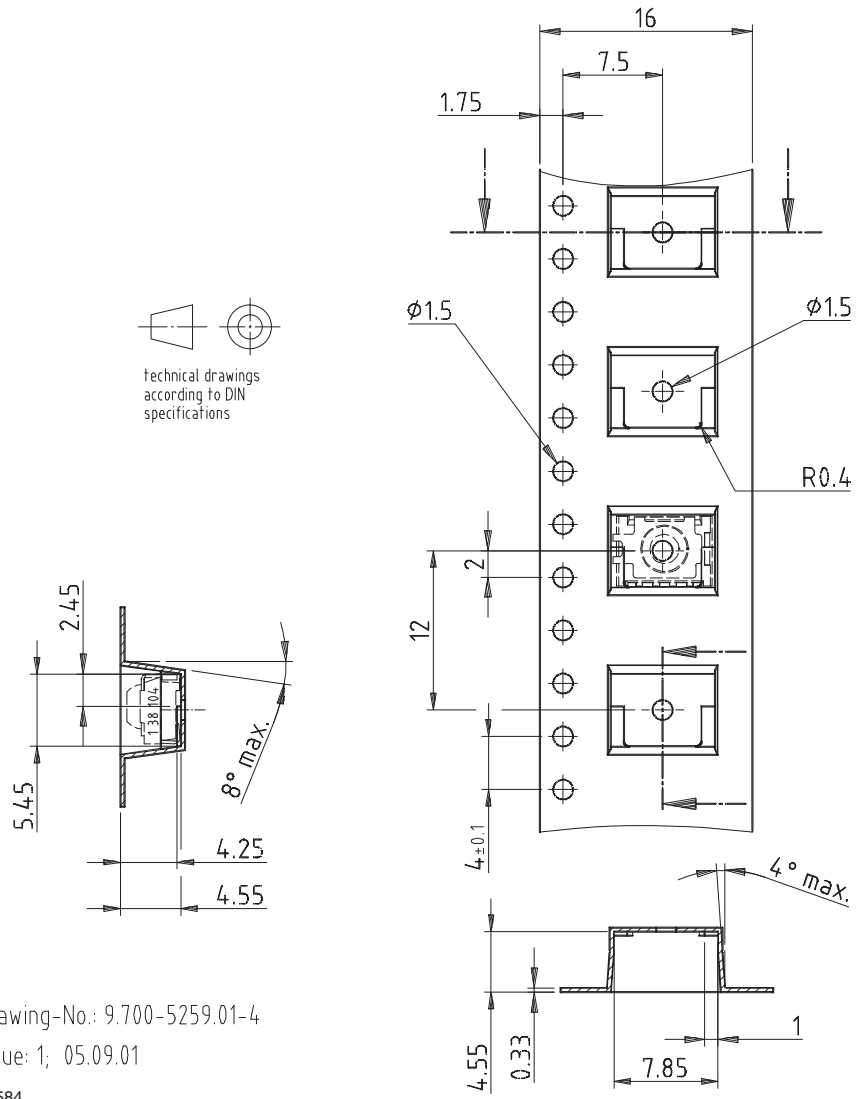
# SMD Tape and Reel



Vishay Semiconductors Tape and Reel Standards for SMD  
IR Receiver Modules

## TAPING VERSION TSOP..TT (TOP VIEW) DIMENSIONS in millimeters

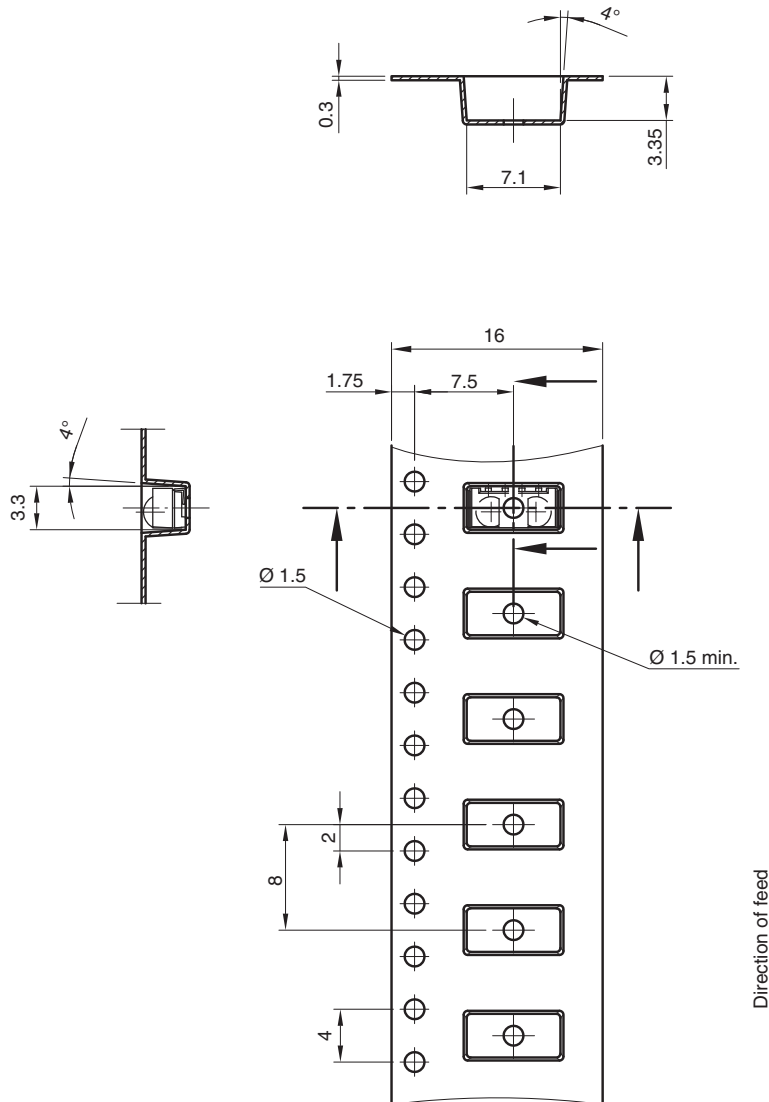
A. Standard SMD (TSOP36...TT; TSOP35...TT; TSOP6...TT)



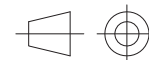
Drawing-No.: 9.700-5259.01-4  
Issue: 1; 05.09.01  
16584

### TAPING VERSION TSOP..TT (TOP VIEW) DIMENSIONS in millimeters

B. Heimdall SMD (TSOP75...TT, TSOP77...TT)



Drawing-No.: 9.700-5338.01-4  
 Issue: 3; 09.06.09  
 21578

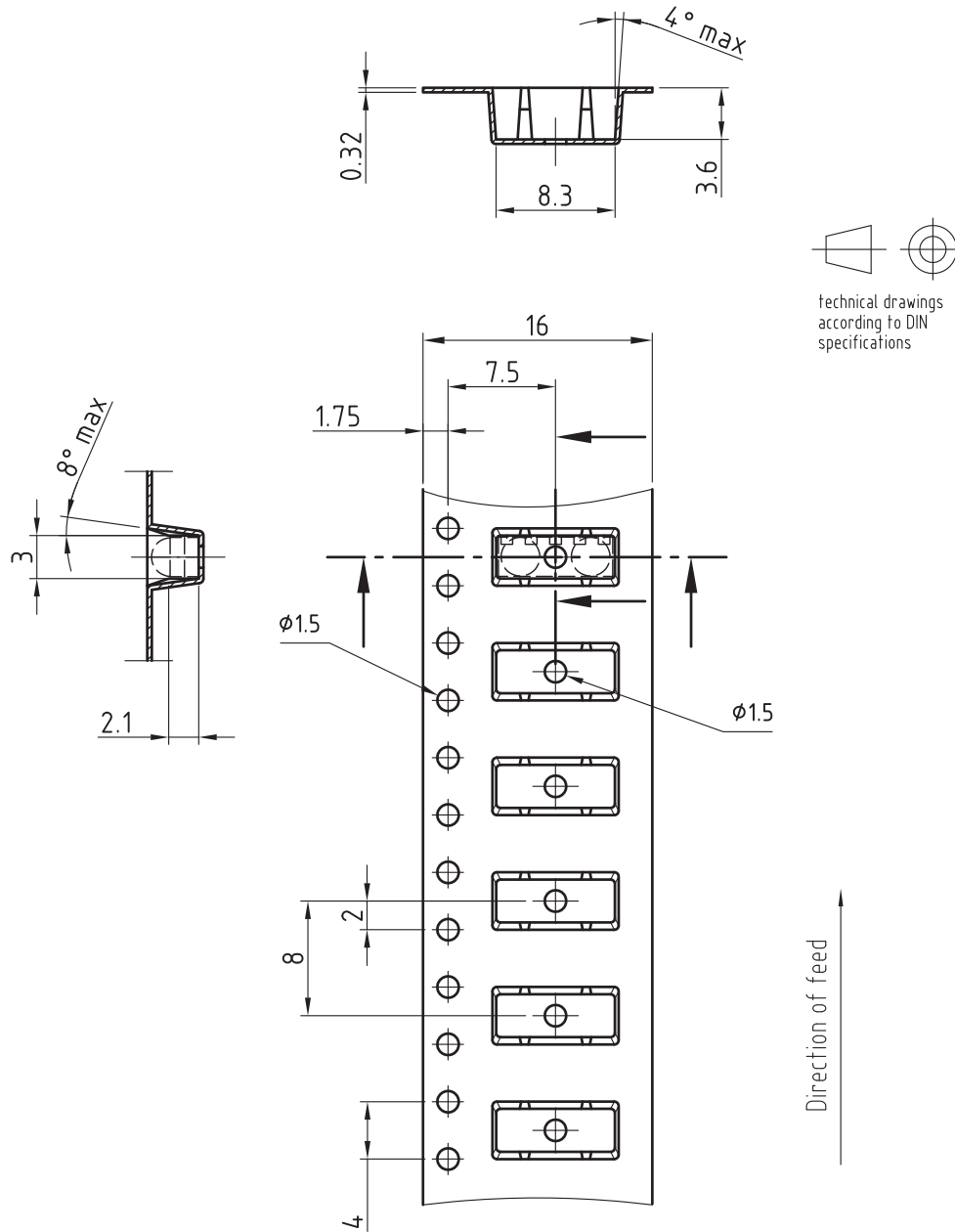


technical drawings  
 according to DIN  
 specifications



### TAPING VERSION TSOP..TT (TOP VIEW) DIMENSIONS in millimeters

D. Bugeye (TSOP85...TT)



Drawing-No.: 9.700-5317.01-4

Issue: 2; 10.04.08

20629





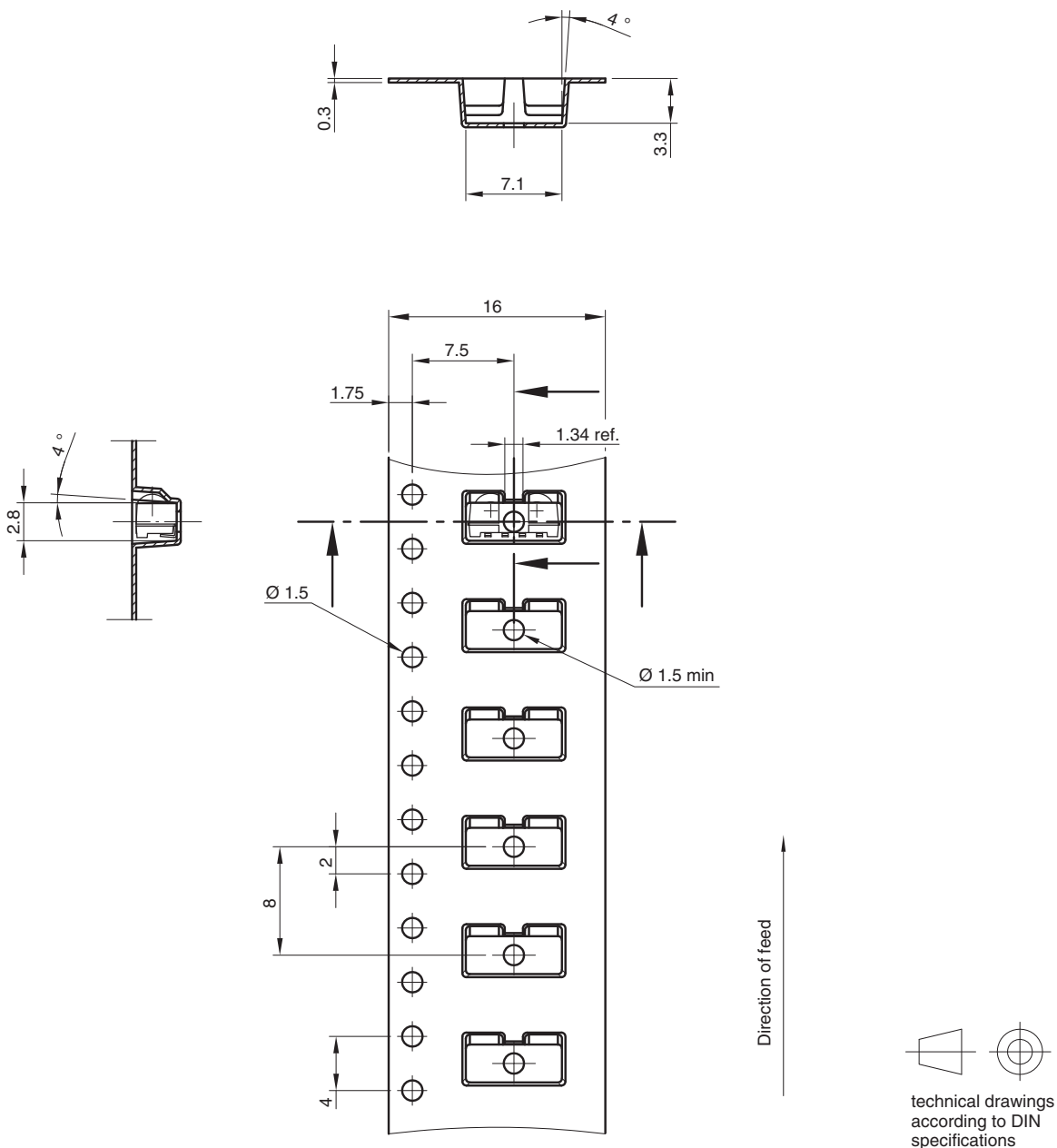
# SMD Tape and Reel



Vishay Semiconductors Tape and Reel Standards for SMD  
IR Receiver Modules

## TAPING VERSION TSOP..TR (SIDE VIEW) DIMENSIONS in millimeters

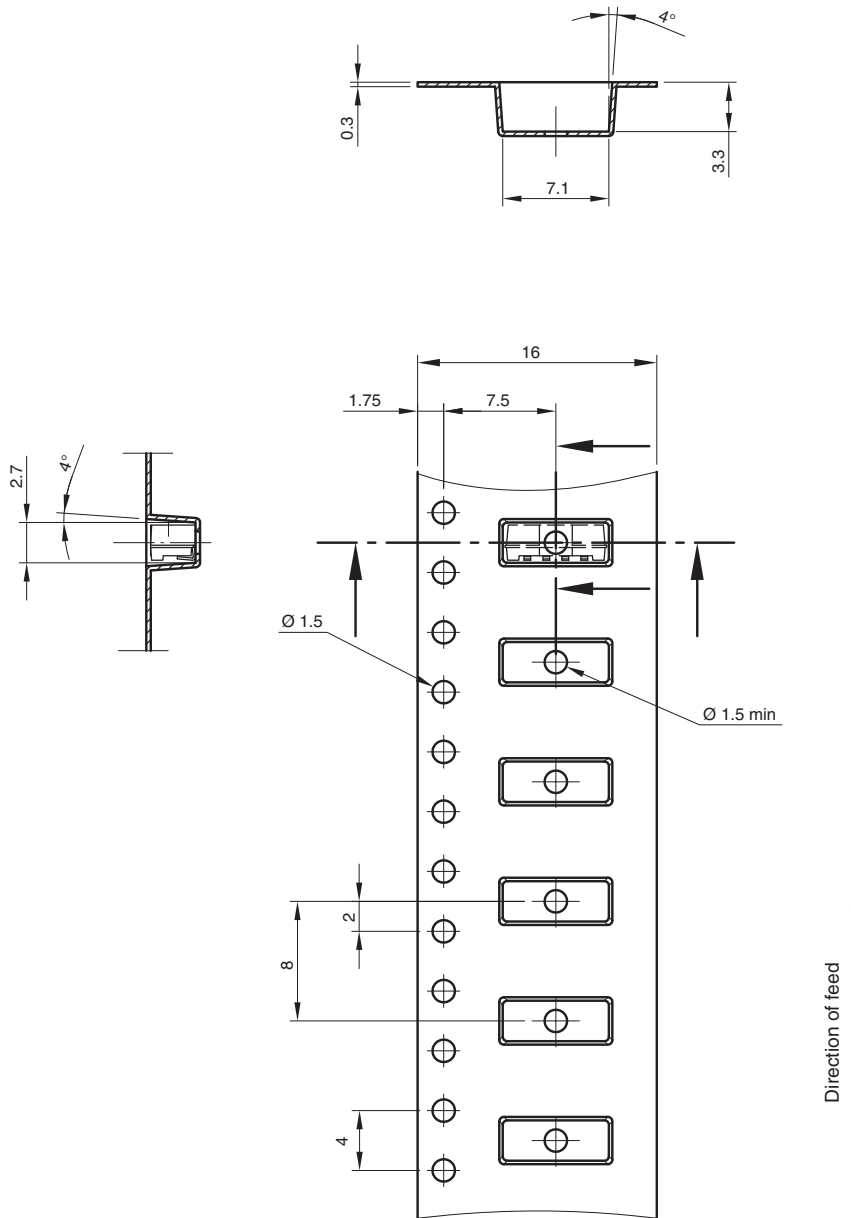
B. Heimdall SMD (TSOP75...TR)



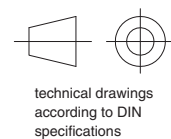
Drawing-No.: 9.700-5337.01-4  
Issue: 1; 16.10.08  
21577

### TAPING VERSION TSOP..TR (SIDE VIEW) DIMENSIONS in millimeters

C. Heimdall SMD without lens (TSOP75...WTR, TSOP77...WTR)



Drawing-No.: 9.700-5342.01-4  
 Issue: 1: 23.03.09  
 21785



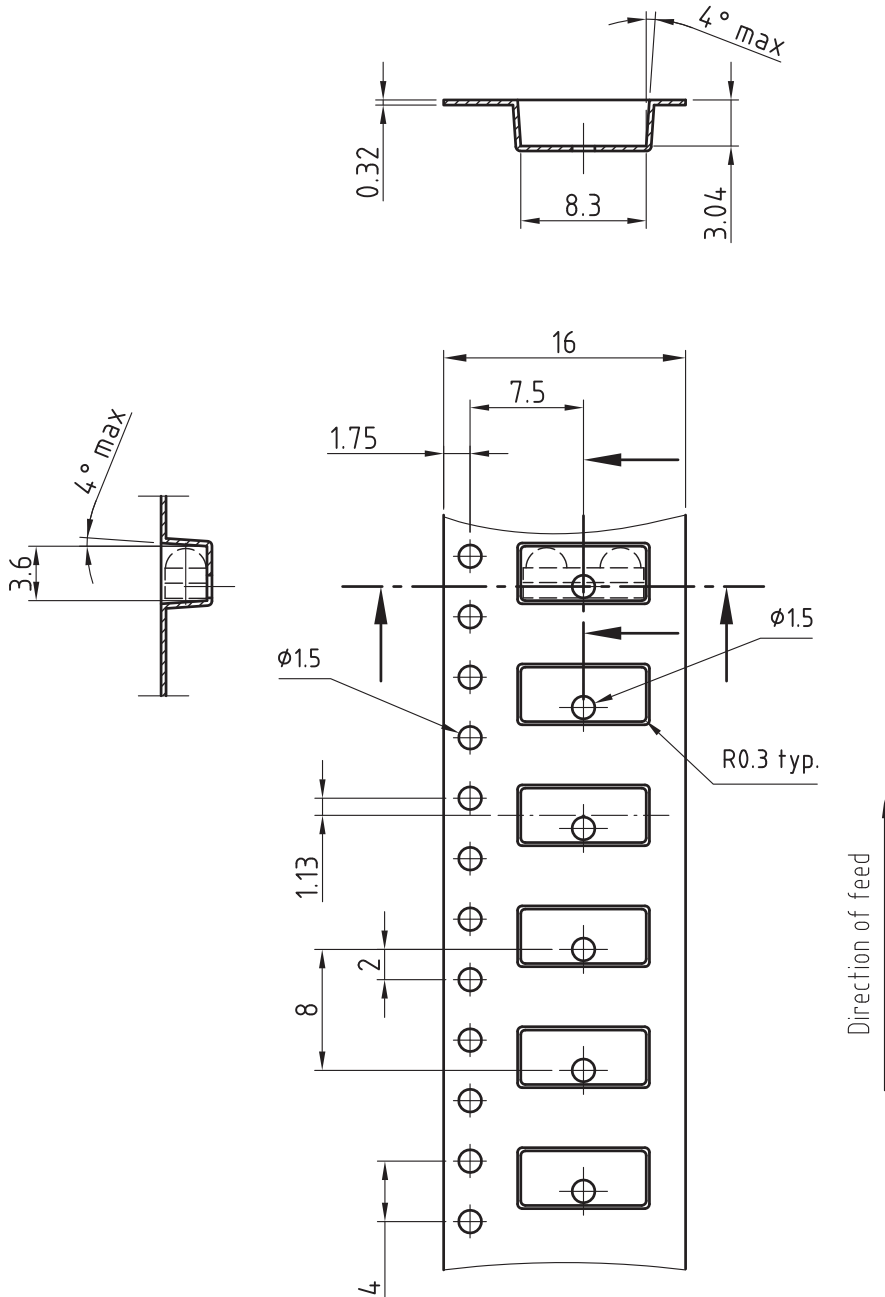
# SMD Tape and Reel

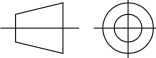


Vishay Semiconductors Tape and Reel Standards for SMD  
IR Receiver Modules

## TAPING VERSION TSOP..TR (SIDE VIEW) DIMENSIONS in millimeters

D. Bugeye (TSOP85...TR)



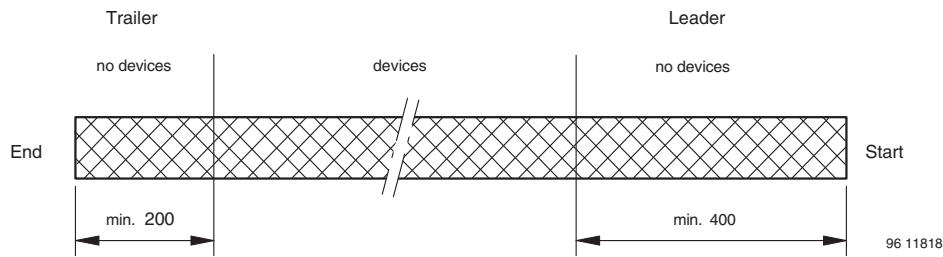
  
technical drawings  
according to DIN  
specifications

Drawing-No.: 9.700-5316.01-4

Issue: 1; 12.02.07

20628

### LEADER AND TRAILER DIMENSIONS in millimeters



### COVER TAPE PEEL STRENGTH

According to DIN EN 60286-3  
 0.1 N to 1.3 N  
 300 mm/min. ± 10 mm/min.  
 165° to 180° peel angle

### LABEL

#### Standard bar code labels for finished goods

The standard bar code labels are product labels and used for identification of goods. The finished goods are packed in final packing area. The standard packing units are labeled with standard bar code labels before transported as finished goods to warehouses. The labels are on each packing unit and contain Vishay Semiconductor GmbH specific data.

VISHAY SEMICONDUCTOR GmbH STANDARD BAR CODE PRODUCT LABEL (finished goods)		
<b>PLAIN WRITING</b>	<b>ABBREVIATION</b>	<b>LENGTH</b>
Item-description	-	18
Item-number	INO	8
Selection-code	SEL	3
LOT-/serial-number	BATCH	10
Data-code	COD	3 (YWW)
Plant-code	PTC	2
Quantity	QTY	8
Accepted by	ACC	-
Packed by	PCK	-
Mixed code indicator	MIXED CODE	-
Origin	xxxxxxx+	Company logo
<b>LONG BAR CODE TOP</b>	<b>TYPE</b>	<b>LENGTH</b>
Item-number	N	8
Plant-code	N	2
Sequence-number	X	3
Quantity	N	8
Total length	-	21
<b>SHORT BAR CODE TOP</b>	<b>TYPE</b>	<b>LENGTH</b>
Selection-code	X	3
Data-code	N	3
Batch-number	X	10
Filter	-	1
Total length	-	17

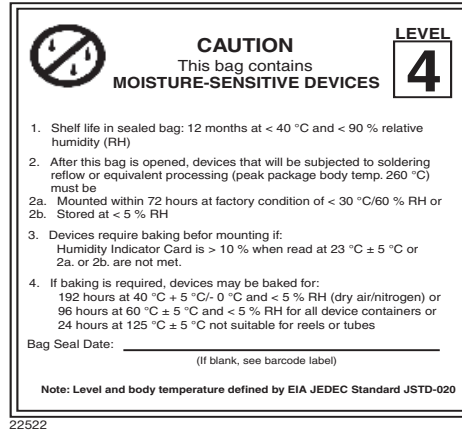
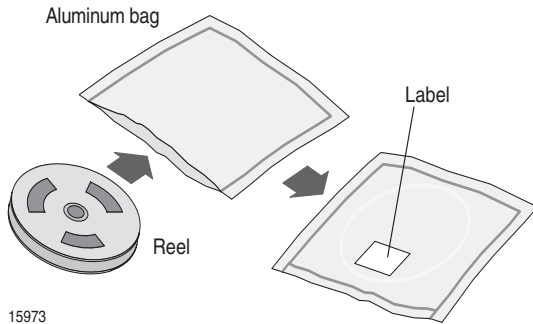
# SMD Tape and Reel



## Vishay Semiconductors Tape and Reel Standards for SMD IR Receiver Modules

### DRY PACKAGING

The reel is packed in an anti-humidity bag to protect the devices from absorbing moisture during transportation and storage.



EIA JEDEC standard JSTD-020 level 4 label is included on all dry bags

### RECOMMENDED METHOD OF STORAGE

Dry box storage is recommended as soon as the aluminum bag has been opened to prevent moisture absorption. The following conditions should be observed, if dry boxes are not available:

- Storage temperature 10 °C to 30 °C
- Storage humidity ≤ 60 % RH max.

After more than 72 h under these conditions moisture content will be too high for reflow soldering.

In case of moisture absorption, the devices will recover to the former condition by drying under the following condition: 192 h at 40 °C ± 5 °C/- 0 °C and < 5 % RH (dry air/nitrogen) or

96 h at 60 °C ± 5 °C and < 5 % RH for all device containers or

24 h at 125 °C ± 5 °C not suitable for reel or tubes.

An EIA JEDEC standard JSTD-020 level 4 label is included on all dry bags.

### ESD PRECAUTION

Proper storage and handling procedures should be followed to prevent ESD damage to the devices especially when they are removed from the antistatic shielding bag. Electro-static sensitive devices warning labels are on the packaging.

### VISHAY SEMICONDUCTORS STANDARD BAR CODE LABELS

The Vishay Semiconductors standard bar code labels are printed at final packing areas. The labels are on each packing unit and contain Vishay Semiconductors specific data.



### OUTER PACKAGING

The sealed reel is packed into a pizza box.

CARTON BOX DIMENSIONS in millimeters			
<p>22127</p>			
	THICKNESS	WIDTH	LENGTH
Pizza Box (SMD and Heimdall) (Taping in Reels)	50	340	340