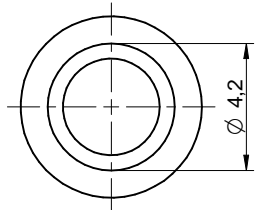
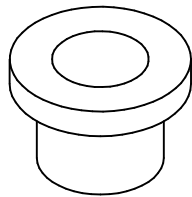
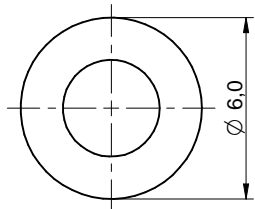
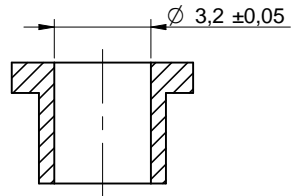
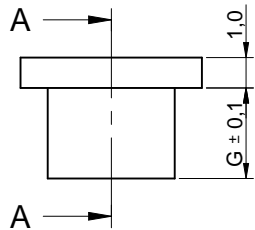


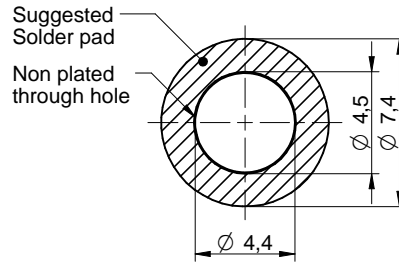
Dimensions: [mm]



sectional drawing A-A

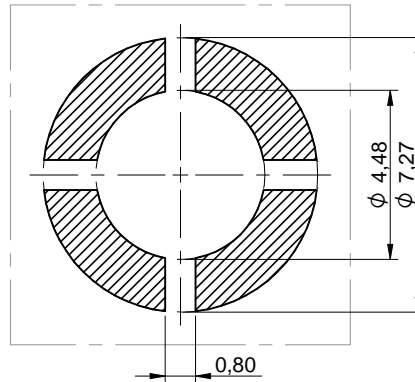


Recommended Land Pattern: [mm]



Scale - 3:1

Stencil Suggestion:



Scale - 5:1

Properties:

Properties		Value	Unit
Inner Diameter	Ø ID	4.2	mm
Outer Diameter	Ø OD	6	mm
Hole Diameter	Ø f	3.2	mm
Material		Steel	
Surface		Tin	
Solder Cream Thickness		150 µm	

Packaging Properties:

Packaging	Tape and Reel
Packaging Unit (Qty.)	300
In Tape & Reel packaging a kapton-film is fixed on the top of the spacer for automatic assembly.	
During the programming of the Pick and Place machine and the AOI, please consider the flap of the kapton-film.	
Please ensure that the z-axis of the Pick and Place machine is adjusted for the negative area.	

Article Properties:

Properties		Value	Unit
Pin length	G	9.6	mm

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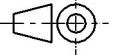

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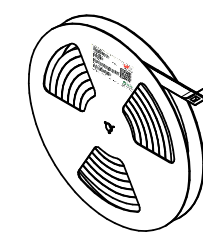
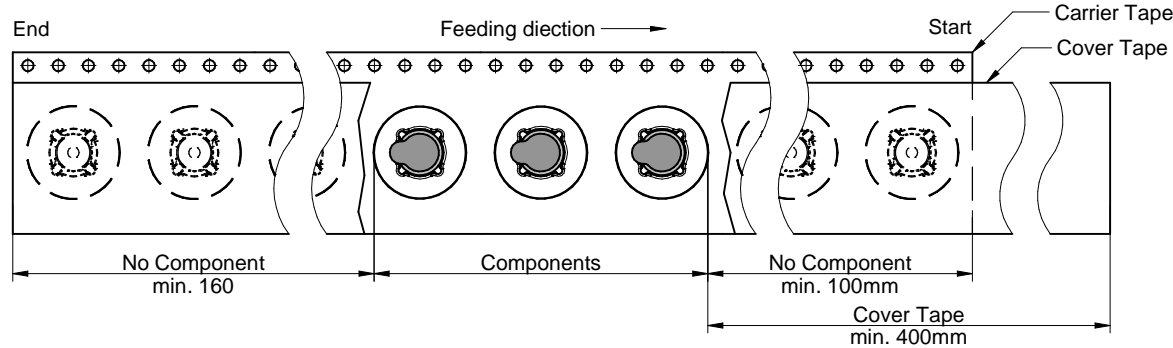
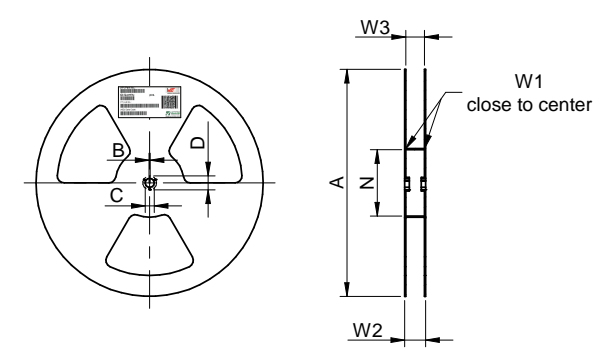
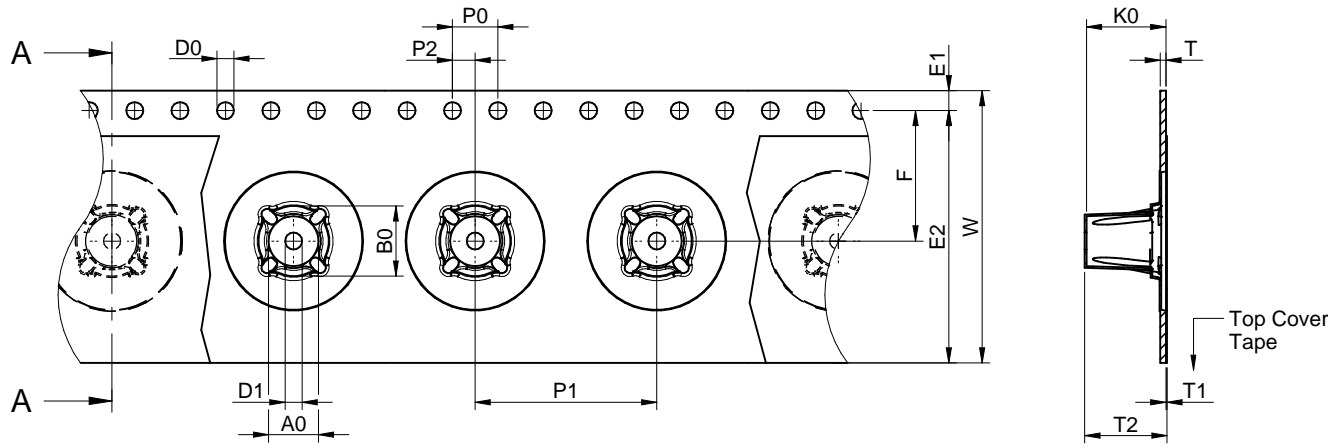
CREATED DaMa	CHECKED SKI	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD
DESCRIPTION WA-SMSR SMD Steel Spacer Reverse with through hole Ø3.2		ORDER CODE 9775096960R	
REVISION 001.002	STATUS Valid	DATE (YYYY-MM-DD) 2017-02-16	BUSINESS UNIT eiCan
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Article Properties:

G	Order Code
2.6 mm	9775026960
	9775026960R
3.1 mm	9775031960
	9775031960R
3.6 mm	9775036960
	9775036960R
4.1 mm	9775041960
	9775041960R
4.6 mm	9775046960
	9775046960R
5.1 mm	9775051960
	9775051960R
5.6 mm	9775056960
	9775056960R
6.6 mm	9775066960
	9775066960R
7.6 mm	9775076960
	9775076960R
8.6 mm	9775086960
	9775086960R
9.6 mm	9775096960
	9775096960R
10.6 mm	9775106960
	9775106960R
11.6 mm	9775116960
	9775116960R

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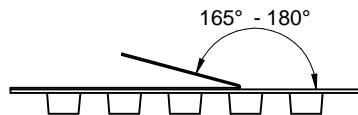
Packaging Specification - Tape and Reel: [mm]



Packaging is referred to the international standard **IEC 60286-3:2013**

	A0	B0	W	T	T1	T2	K0	P0	P1	P2	D0	D1	E1	E2	F	Tape Type	VPE / packaging unit	
tolerance	+0,2	+0,2	±0,3	typ.	max.	typ.	typ.	typ.	±0,1	typ.	+0,1	typ.	typ.	min.	typ.	Polystyrene	pcs.	
size	9775096960R	4,40	6,20	24,00	0,30	0,10	11,30	11,00	4,00	16,00	2,00	1,50	1,50	1,75	22,25	11,50	Polystyrene	300

	A	B	C	D	N	W1	W2	W3	W3	
tolerance	± 2,0	min.	min.	min.	± 2,0	+ 2	max.	min.	max.	
Tape width	24mm	330,00	1,50	12,80	20,20	60,00	24,40	30,40	23,90	27,40



	Pull-of force
Tape width	24 mm
	0,1 N - 1,3 N

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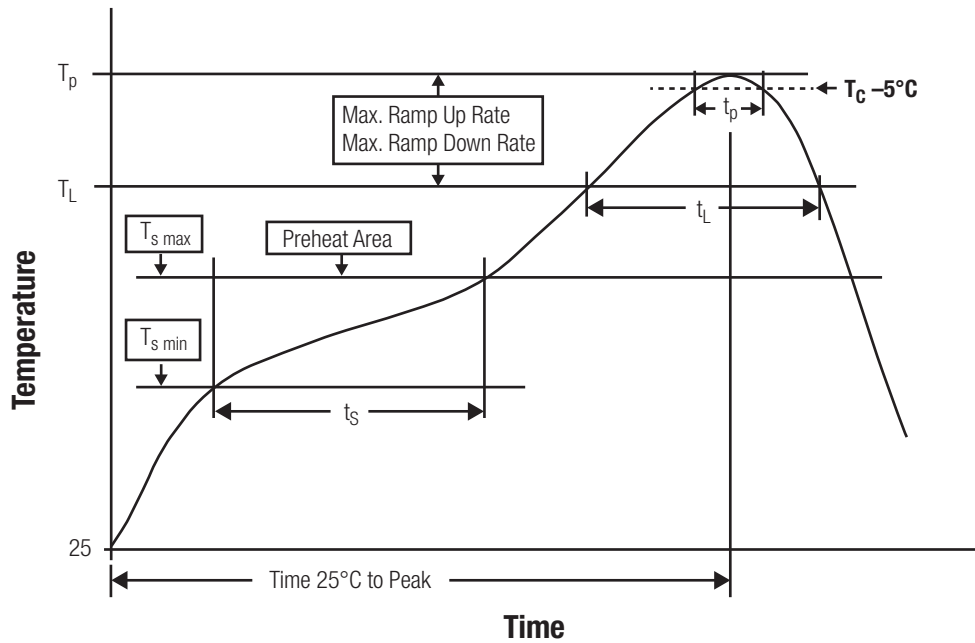
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CREATED	CHECKED	GENERAL TOLERANCE	PROJECTION METHOD
DaMa	SKI	DIN ISO 2768-1m	
DESCRIPTION		ORDER CODE	
WA-SMSR SMD Steel Spacer Reverse with through hole Ø3.2		9775096960R	
REVISION	STATUS	DATE (YYYY-MM-DD)	BUSINESS UNIT
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This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik eiSos GmbH & Co KG products are neither designed nor intended for use in areas such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc. Würth Elektronik eiSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:

Profile Feature		Value
Preheat Temperature Min ¹⁾	$T_{s \text{ min}}$	150 °C
Preheat Temperature Max	$T_{s \text{ max}}$	200 °C
Preheat Time t_s from $T_{s \text{ min}}$ to $T_{s \text{ max}}$	t_s	60 - 120 seconds
Ramp-up Rate (T_L to T_p)		3 °C/ second max.
Liquidous Temperature	T_L	217 °C
Time t_L maintained above T_L	t_L	60 - 150 seconds
Peak package body temperature	T_p	see table
Time within 5°C of actual peak tempereure	t_p	20 - 30 seconds
Ramp-down Rate (T_L to T_p)		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

¹⁾ refer to IPC/JEDEC J-STD-020D
refer to IPC/ JEDEC J-STD-020E

Package Classification Reflow Temperature:

Properties	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly Package Thickness < 1.6 mm ¹⁾	260 °C	260 °C	260 °C
PB-Free Assembly Package Thickness 1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
PB-Free Assembly Package Thickness ≥ 2.5 mm	250 °C	245 °C	245 °C

¹⁾ refer to IPC/JEDEC J-STD-020D
refer to IPC/ JEDEC J-STD-020E

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Cautions and Warnings:

The following conditions apply to all goods within the product series of WA-SMSR of Würth Elektronik eiSos GmbH & Co. KG:

General:


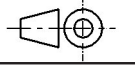
All recommendations according to the general technical specifications of the data-sheet have to be complied with.

The responsibility for the applicability of customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products do also apply for customer specific products.

Product Specific:

Follow all instructions in the datasheet, especially:

- The solder profile has to be complied with according to the technical reflow soldering specification, otherwise no warranty will be sustained. Surface discoloration due to reflow processing is permitted.
- Wave soldering is not applicable. Reflow soldering is recommended.
- All products shall be used before the end of the period of 12 months based on the product date-code, if not a 100% solderability can't be ensured.
- The maximum permissible torques must be complied with to prevent mechanical destruction of the elements and PCB.

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Important Notes

The following conditions apply to all goods within the product range of Würth Elektronik eiSos GmbH & Co. KG:

1. General Customer Responsibility

Some goods within the product range of Würth Elektronik eiSos GmbH & Co. KG contain statements regarding general suitability for certain application areas. These statements about suitability are based on our knowledge and experience of typical requirements concerning the areas, serve as general guidance and cannot be estimated as binding statements about the suitability for a customer application. The responsibility for the applicability and use in a particular customer design is always solely within the authority of the customer. Due to this fact it is up to the customer to evaluate, where appropriate to investigate and decide whether the device with the specific product characteristics described in the product specification is valid and suitable for the respective customer application or not.

2. Customer Responsibility related to Specific, in particular Safety-Relevant Applications

It has to be clearly pointed out that the possibility of a malfunction of electronic components or failure before the end of the usual lifetime cannot be completely eliminated in the current state of the art, even if the products are operated within the range of the specifications. In certain customer applications requiring a very high level of safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health it must be ensured by most advanced technological aid of suitable design of the customer application that no injury or damage is caused to third parties in the event of malfunction or failure of an electronic component. Therefore, customer is cautioned to verify that data sheets are current before placing orders. The current data sheets can be downloaded at www.we-online.com.

3. Best Care and Attention

Any product-specific notes, cautions and warnings must be strictly observed. Any disregard will result in the loss of warranty.

4. Customer Support for Product Specifications

Some products within the product range may contain substances which are subject to restrictions in certain jurisdictions in order to serve specific technical requirements. Necessary information is available on request. In this case the field sales engineer or the internal sales person in charge should be contacted who will be happy to support in this matter.

5. Product R&D

Due to constant product improvement product specifications may change from time to time. As a standard reporting procedure of the Product Change Notification (PCN) according to the JEDEC-Standard inform about minor and major changes. In case of further queries regarding the PCN, the field sales engineer or the internal sales person in charge should be contacted. The basic responsibility of the customer as per Section 1 and 2 remains unaffected.

6. Product Life Cycle


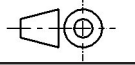
Due to technical progress and economical evaluation we also reserve the right to discontinue production and delivery of products. As a standard reporting procedure of the Product Termination Notification (PTN) according to the JEDEC-Standard we will inform at an early stage about inevitable product discontinuance. According to this we cannot guarantee that all products within our product range will always be available. Therefore it needs to be verified with the field sales engineer or the internal sales person in charge about the current product availability expectancy before or when the product for application design-in disposal is considered. The approach named above does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.

7. Property Rights

All the rights for contractual products produced by Würth Elektronik eiSos GmbH & Co. KG on the basis of ideas, development contracts as well as models or templates that are subject to copyright, patent or commercial protection supplied to the customer will remain with Würth Elektronik eiSos GmbH & Co. KG. Würth Elektronik eiSos GmbH & Co. KG does not warrant or represent that any license, either expressed or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right relating to any combination, application, or process in which Würth Elektronik eiSos GmbH & Co. KG components or services are used.

8. General Terms and Conditions

Unless otherwise agreed in individual contracts, all orders are subject to the current version of the "General Terms and Conditions of Würth Elektronik eiSos Group", last version available at www.we-online.com.

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