

Properties:

Properties		Value	Unit			
Inner Diameter	ØID	4.2	mm			
Outer Diameter	ØOD	6	mm			
Hole Diameter	Øf	3.2	mm			
Material		Steel				
Surface	Tin					
Solder Cream Thickness		150	μm			

		f	Packa	ging P	roperties							
	<u> </u>		Packagir	ıg			1	Tape and	d Reel			
	8 1		Packagir	ng Unit (C	Qty.)	Qty.			300			
- +	4,48 7,27		In Tape	In Tape & Reel packaging a kapton-film is fixed on the top of the spacer for automatic assembly.								
	00		During th	e program	nming of the Pick		nachine and the con-film.	e AOI, pl	ease consider th	e flap of the		
	+ •		Please	ensure th	nat the z-axis of	the Pick and	Place machine	is adjus	ted for the nega	tive area.		
		CREATED		CHECKED JuSa		L TOLERANCE CO 2768-1m	PR	ROJECTION ETHOD		-		
			SMSR		Steel Spac		ORDER CODE		I	I		
						03.2	977510	6960	R			
			REVISIO		STATUS		DATE (YYYY-MM-DD)		BUSINESS UNIT	PAGE		
/ÜRTH ELEK	TRONIK		001.	002	Valid		2017-11-22		eiCan	1/6		

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 and rel

Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com

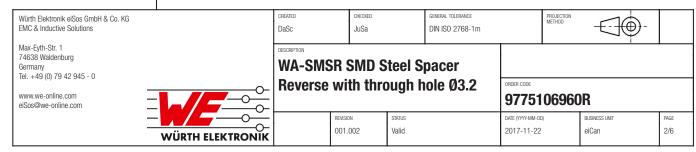
Recommended Land Pattern: [mm]

Ø 4,5 Ø 7,4

Scale - 3:1

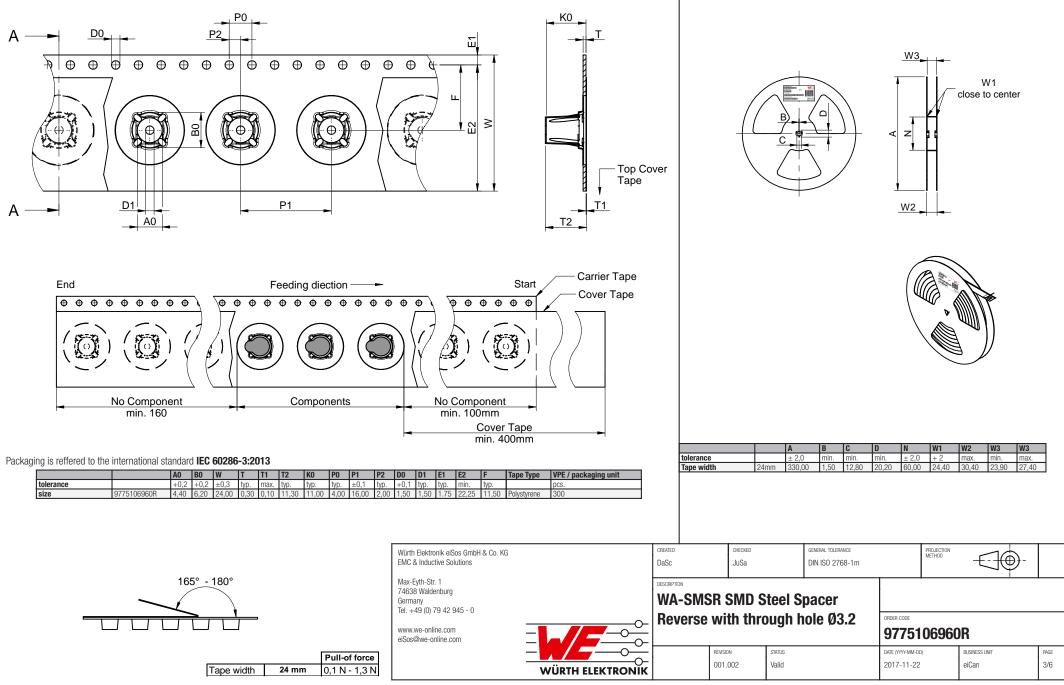
Article Properties:

G	Order Code					
0.0	9775026960					
2.6 mm	9775026960R					
3.1 mm	9775031960					
3.1 11111	9775031960R					
3.6 mm	9775036960					
3.0 11111	9775036960R					
4.1 mm	9775041960					
4.1 11111	9775041960R					
4.6 mm	9775046960					
4.0 11111	9775046960R					
5.1 mm	9775051960					
	9775051960R					
5.6 mm	9775056960					
5.6 mm	9775056960R					
6.6 mm	9775066960					
0.0 mm	9775066960R					
7.6 mm	9775076960					
7.6 11111	9775076960R					
8.6 mm	9775086960					
0.0 mm	9775086960R					
9.6 mm	9775096960					
3.0 mm	9775096960R					
10.6 mm	9775106960					
	9775106960R					
11.6 mm	9775116960					
	9775116960R					



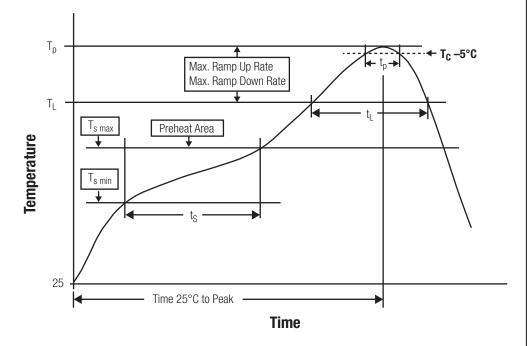
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Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:

Profile Feature		Value
Preheat Temperature Min ¹⁾	T _{s min}	150 °C
Preheat Temperature Max	T _{s max}	200 °C
Preheat Time ${\rm t_s}$ from ${\rm T_s}_{\rm min}$ to ${\rm T_s}_{\rm max}$	t _s	60 - 120 seconds
Ramp-up Rate (T _L to T _P)		3 °C/ second max.
Liquidous Temperature	TL	217 °C
Time t_L maintained above T_L	tL	60 - 150 seconds
Peak package body temperature	Т _р	see table
Time within 5°C of actual peak temperaure	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 I 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 \ge 2.5 mm	250 °C	245 °C	245 °C

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

Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions	CREATED	OHECKED JuSa		GENERAL TOLERANCE DIN ISO 2768-1m		PROJECTION METHOD		
Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0		A-SMSR SMD Steel Spacer					·	
www.we-online.com eiSos@we-online.com	Reverse with through hole Ø3.2					06960)R	
		REVISION DO1.002	status Valid		DATE (YYYY-MM-DD) 2017-11-22)	BUSINESS UNIT eiCan	PAGE 4/6

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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 24 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.

Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions	CREATED DaSc	OHECKED JuSa		GENERAL TOLERANCE DIN ISO 2768-1m		PROJECTION METHOD		
Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0	WA-SMSR SMD Steel Spacer							-
www.we-online.com eiSos@we-online.com	Reverse with through hole Ø3.2					06960	R	
	1 1	USION 01.002	status Valid		DATE (YYYY-MM-DE 2017-11-22	,	BUSINESS UNIT eiCan	page 5/6

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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 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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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный) **Факс:** 8 (812) 320-02-42 **Электронная почта:** <u>org@eplast1.ru</u> **Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.