# **Excellent Integrated System Limited**

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

Wurth Electronics Inc 7447471473

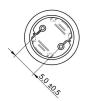
For any questions, you can email us directly: <a href="mailto:sales@integrated-circuit.com">sales@integrated-circuit.com</a>

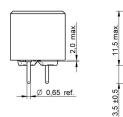


Datasheet of 7447471473 - FIXED IND 47MH 70MA 100 OHM TH

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## A Dimensions: [mm]









Scale - 2:1

Reference on drawing	Description		
•	Start of winding		
Marking	473 (Inductance Code)		

## B Recommended hole pattern: [mm]



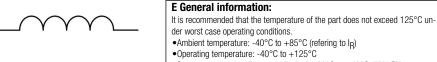
C Schematic:

Scale - 2:1



## **D Electrical Properties:**

-					
Properties	Test conditions		Value	Unit	Tol.
Inductance	1 kHz/ 250 mV	L	47000	μН	±10%
Rated current	ΔT = 40 K	I <sub>R</sub>	0.07	Α	max.
Saturation current	IΔL/LI < 10%	I <sub>sat</sub>	0.07	Α	typ.
DC Resistance		R <sub>DC</sub>	75	Ω	typ.
DC Resistance		R <sub>DC</sub>	90	Ω	max.
Self resonant frequency		frac	0.15	MHz	typ.



- Storage temperature (in tray packaging): -20°C to +40°C; 75% RH max.

  •Test conditions of Electrical Properties: 20°C, 33% RH if not specified differently

				Projection		DESCRIPTION	
2.1	2014-09-10	SSt	SSt	<del>-</del> -1			
2.0	2014-01-13	SSt	MaKa			WE-TIS Shielded	Rac
1.5	2013-09-25	SSt	COt	Würth Elektronik eiSos Gmb	H & Co. KG	Wound Inductor	
1.4	2013-04-29	SSt	SSt	EMC & Inductive Solutions Max-Evth-Str. 1		Woulld illudotol	
1.3	2012-12-10	SSt	SSt	74638 Waldenburg		Order No.	
1.2	2012-10-29	SSt	COt	Germany Tel. +49 (0) 79 42 945 - 0			(
1.1	2012-06-28	SSt	SSt	www.we-online.com eiSos@we-online.com		7447471473	
REV	DATE	BY	CHECKED	CIOUS WWC-UTIIITE.CUTT		Size: 1111	

dial Leaded Wire

COMPLIANT ROHS&REACH WÜRTH ELEKTRONIK SIZE

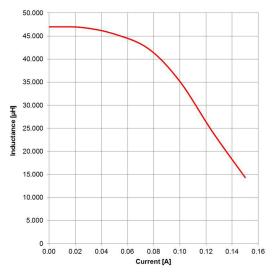




more than you expect



## F1 Typical Inductance vs. Current Characteristics:



				Projection		DESCRIPTION			
2.1	2014-09-10	SSt	SSt						
2.0	2014-01-13	SSt	MaKa	9		WE-TIS Shielded	Radial Leaded Wire		
1.5	2013-09-25	SSt	COt	Würth Flektronik eiSos GmhH & Co. KG		Wound Inductor			
1.4	2013-04-29	SSt	SSt	EMC & Inductive Solutions Max-Evth-Str. 1		Would illuuctor			
1.3	2012-12-10	SSt	SSt	74638 Waldenburg		Order No.	COMPLIANT	SIZE	
1.2	2012-10-29	SSt	COt	Germany Tel. +49 (0) 79 42 945 - 0	0		ROHS&REACH	SIZL	
1.1	2012-06-28	SSt	SSt	www.we-online.com eiSos@we-online.com		7447471473	WORTH ELEKTRONIK	A4	
REV	DATE	BY	CHECKED	elous@we-utilite.com		Size: 1111			

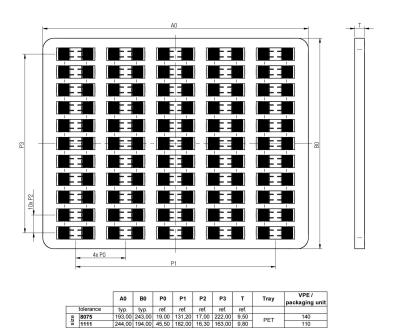
This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially equiend or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Wilm Elektronic ReSos Grint A Co NG products are neither designed nor intended for use in a reasonable, acrespose, auditors, nuclearly in a responsable or performance, and in a reasonable or performance on every electrical postular information network etc.. Wifth Elektronic ReSos Grint H & Co NG must be informed about the intent of such usage before the design-in stage, in a facility in a substance of the control or performance or every electronic component without its user in electrical controls. But require high safety and reliability intended in or performance.

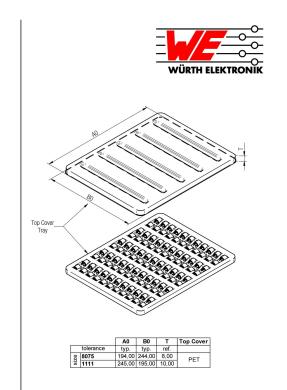


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# G1 Packaging Specification - Tray [mm]:





						DESCRIPTION				
				Projection		DESCRIPTION				
2.1	2014-09-10	SSt	SSt	<del></del> 1						
2.0	2014-01-13	SSt	MaKa	Ψ		WE-TIS Shielded Radial Leaded Wire				
1.5	2013-09-25	SSt	COt	Würth Elektronik eiSos GmbH & Co. KG		<b>Wound Inductor</b>				
1.4	2013-04-29	SSt	SSt	EMC & Inductive Solutions Max-Evth-Str. 1	ons Trouita	Would illudotol				
1.3	2012-12-10	SSt	SSt	74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com		Order No.	COMPLIANT	SIZE		
1.2	2012-10-29	SSt	COt		7447474	ROHS&REACH	OIZE			
1.1	2012-06-28	SSt	SSt		7447471473 WORTH ELEKTI		A4			
REV	DATE	BY	CHECKED	CIOUS GWC GHIIIC.COM		Size: 1111				

In section component has been because or progress as to use a separate account or opportunity or location, unless the parties name recovered as a green in speciment with a control, transportation signal, disaster prevention, medical, public information network etc.. With Elektronik eSos 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.

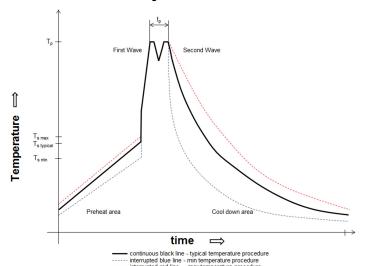


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### **H Soldering Specifications:**

## **H4: Classification Wave Soldering Profile:**



### **H5: Classification Wave Profile**

Profile Feature	Pb-Free Assembly	Sn-Pb Assembly
Preheat  - Temperature Min (T <sub>SMIn</sub> )  - Temperature Typical (T <sub>Stypical</sub> )  - Temperature Max (T <sub>Smax</sub> )  - Time (t <sub>s</sub> ) from (T <sub>SMIn</sub> to T <sub>Smax</sub> )	100°C 120°C 130°C 70 seconds	100°C 120°C 130°C 70 seconds
Δ preheat to max Temperature	150°C max.	150°C max.
Peak temperature (Tp)	250°C - 260°C	235°C - 260°C
Time of actual peak temperature $(t_p)$	max. 10 seconds max. 5 second each wave	max. 10 seconds max. 5 second each wave
Ramp-down rate - Min - Typical - Max	~ 2 K/s ~ 3.5 K/s ~ 5 K/s	~ 2 K/s ~ 3.5 K/s ~ 5 K/s
Time 25°C to 25°C	4 minutes	4 minutes

refer to EN 61760-1:2006

				Projection ,		DESCRIPTION	
2.1	2014-09-10	SSt	SSt	<del>-</del> -1-			
2.0	2014-01-13	SSt	MaKa	9		<b>WE-TIS Shielded Radial Leaded Wire</b>	
1.5	2013-09-25	SSt	COt	Würth Elektronik elSos Gmbl-	1 & Co. KG	Wound Inductor	
1.4	2013-04-29	SSt	SSt	EMC & Inductive Solutions Max-Evth-Str. 1		Woulld Illudotol	
1.3	2012-12-10	SSt	SSt	74638 Waldenburg		Order No.	
1.2	2012-10-29	SSt	COt	Germany Tel. +49 (0) 79 42 945 - 0		ROHS&REACH WORTH ELEKTRONIK	
1.1	2012-06-28	SSt	SSt	www.we-online.com eiSos@we-online.com		7447471473 WÜRTH ELEKTRONIK	
DEV.	DATE	DV	CHECKED	CIOUS-SITE GIIIIIE.COIII		Cizo: 1111	

COMPLIANT ROHS&REACH WÜRTH ELEKTRONIK SIZE



Datasheet of 7447471473 - FIXED IND 47MH 70MA 100 OHM TH

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### **I Cautions and Warnings:**

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

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

The usage and operation of the product within ambient conditions, which probably alloy or harm the wire isolation, has to be avoided.

If the product is potted in customer applications, the potting material might shrink during and after hardening. The product is exposed to the pressure of the potting material with the effect that the core, wire and termination is possibly damaged by this pressure and so the electrical as well as the mechanical characteristics are endangered to be affected. After the potting material is cured, the core, wire and termination of the product have to be checked if any reduced electrical or mechanical functions or destructions have occurred.

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 to customer specific products

Cleaning agents that are used to clean the customer application might damage or change the characteristics of the component, body, pins or

Direct mechanical impact to the product shall be prevented as the ferrite material of the core could flake or in the worst case it could break.

#### Product specific:

Follow all instructions mentioned in the data sheet, especially:

- •The soldering profile has to be complied with according to the technical wave soldering specification, otherwise this will void the warranty.
  •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
- Violation of the technical product specifications such as exceeding the nominal rated current will void the warranty.
   Strong force and high accelerations of the component size 1111 might have the effect of damage the electrical connection or to harm the circuit board due to the heavy weight of the component. These damages will void the warranty

The general and product specific cautions comply with the state of the scientific and technical knowledge and are believed to be accurate and reliable; however, no responsibility is assumed for inaccuracies or incompleteness

				Projection .		DESCRIPTION			
2.1	2014-09-10	SSt	SSt	<del>-</del> -1					
2.0	2014-01-13	SSt	MaKa			WE-TIS Shielder	d Radial Leaded Wire		
1.5	2013-09-25	SSt	COt	Würth Elektronik eiSos Gmbi	H & Co. KG	Wound Inductor	•		
1.4	2013-04-29	SSt	SSt	EMC & Inductive Solutions Max-Evth-Str. 1		Would illudotol			
1.3	2012-12-10	SSt	SSt	74638 Waldenburg		Order No.	COMPLIANT	SIZE	
1.2	2012-10-29	SSt	COt	Germany Tel. +49 (0) 79 42 945 - 0		7447474470	ROHS&REACH	OLL	
1.1	2012-06-28	SSt	SSt	www.we-online.com eiSos@we-online.com		7447471473	SOATH ELEKTRONIK	A4	
REV	DATE	BY	CHECKED	elous@we-urillite.cutti		Size: 1111			

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 Wilm Elektronic Resides Genified X to XIS grounds are neither designed not intended for use in a reasonable, and a reliability standard in electronic experts, in a partie or intended to read a reliability standard in electronic specifically expected on experts and a reliability standard in electronic specifically governing such use. Moreover Wilm Elektronic Residual post and a reliability standard in electronic specifical post and reliability standard in electronic specifical post and reliability standard in electronic specifically governing such use. Moreover Wilm Elektronic specifical post and reliability standard in electronic specifically governing such use. Moreover Wilm Elektronic specifically governing such use. Wilm Elektr





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### J 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 spe cific 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.

				Projection .		DESCRIPTION			
2.1	2014-09-10	SSt	SSt						
2.0	2014-01-13	SSt	MaKa	9		WE-TIS Shielde	d Radial Leaded Wire		
1.5	2013-09-25	SSt	COt	Würth Elektronik eiSos Gmbl	n Elektronik elSos GmbH & Co. KG Wound Inductor				
1.4	2013-04-29	SSt	SSt	EMC & Inductive Solutions Max-Evth-Str. 1		Would illudotol			
1.3	2012-12-10	SSt	SSt	74638 Waldenburg		Order No.	COMPLIANT	SIZE	
1.2	2012-10-29	SSt	COt	Germany Tel. +49 (0) 79 42 945 - 0		7447474470	ROHS&REACH	OLL	
1.1	2012-06-28	SSt	SSt	www.we-online.com eiSos@we-online.com		7447471473	TOTAL ELEKTRONIK	A4	
REV	DATE	BY	CHECKED	- CIOOSONC GIIIIIC.COIII		Size: 1111			

restrict 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 experience of the