# **Dimensions:** [mm]

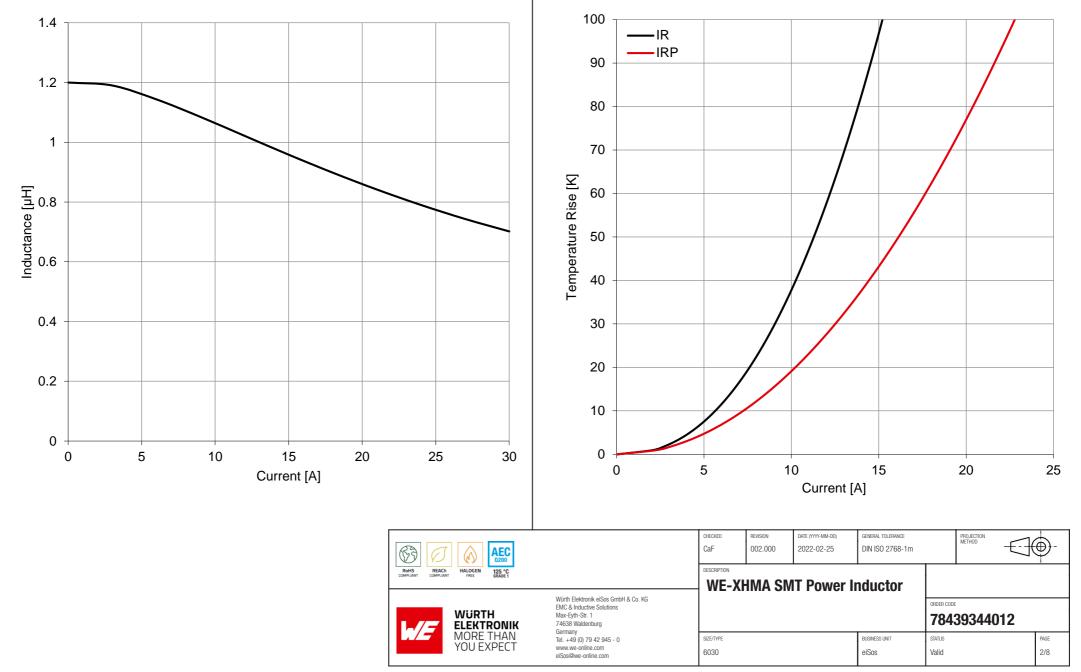
#### Properties **Test conditions** Unit Tol. Value 100 kHz/ 10 mA 1.2 μH ±20% Inductance 5,5 **Rated Current** $\Delta T = 40 \text{ K}$ 10.3 А I<sub>B.40K</sub> max. Performance Rated Current 1) $\Delta T = 40 \text{ K}$ 14.45 А max. I<sub>BP.40K</sub> 1,3 ±0,1 Saturation Current @ 10% 7.7 ISAT.10% $|\Delta L/L| < 10 \%$ А typ. 55. Saturation Current @ 30% $|\Delta L/L| < 30 \%$ 21.6 А typ. I<sub>SAT.30%</sub> 2 25 DC Resistance R<sub>DC</sub> 6.4 mΩ ±10% ę. MHz Self Resonant Frequency 53 typ. f<sub>res</sub> 4,5 min. 75 4,9 ±0,4 1) refer to IEC 62024-2-2020 رم آ **Certification:** no vias and sensitive traces underneath the component 6,65 ±0,2 **RoHS** Approval Compliant [2011/65/EU&2015/863] **REACh Approval** Conform or declared [(EC)1907/2006] Scale - 4:1 6,9 0,2 **Halogen Free** Conform [JEDEC JS709B] The width dimension of the soldering terminal is specified without 0 coating **Halogen Free** Conform [IEC 61249-2-21] ς, **Component Qualification** AEC-Q200 Grade 1 0,6 ±0,3 Schematic: Automotive Approval Released **General Information:** Ambient Temperature (referring -40 up to +85 °C to I<sub>R</sub>) **Operating Temperature** -40 up to +125 °C Matting ,45 ±0,2 **Storage Conditions (in original** Marking < 40 °C; < 75 % RH packaging) ശ Moisture Sensitivity Level (MSL) 1 Test conditions of Performance Rated Current: refer to IEC 62024-2, Class D (PCB Copper Width: 40 mm; PCB Copper Thickness: 1000 $\mu\text{m})$ Temperature rise is highly dependent on many factors including PCB land pattern, trace size, and proximity to other components. Therefore, temperature rise should be verified in application Scale - 4:1 conditions. **Product Marking:** Start of Winding . DATE (YYYY-MM-DD GENERAL TOLERANCE CHECKED REVISION PROJECTION METHOD Marking 1R2 (Inductance Code) $\overline{(0)}$ CaF 002.000 2022-02-25 DIN ISO 2768-1m GI ( )DESCRIPTIO RoHS REACH HALOGEN FREE 125 °C **WE-XHMA SMT Power Inductor** Würth Elektronik eiSos GmbH & Co. KG ORDER CODE EMC & Inductive Solutions Max-Eyth-Str. 1 WÜRTH 78439344012 74638 Waldenburg ELEKTRONIK Germany Tel. +49 (0) 79 42 945 - 0 MORE THAN SIZE/TYPE BUSINESS UNIT STATUS PAGE YOU EXPECT www.we-online.com 6030 eiSos Valid 1/8 eiSos@we-online.com

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 Wirth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be informed on every electronic component which is used in equipment advecting crucially executed in agreement. 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 evaluation checks for safety must be performed on every electrical circuits that require high safety and reliability evaluation checks for safety must be performed on every electrical circuits that require high safety and reliability evaluation checks for safety must be performed.

## **Recommended Land Pattern: [mm]**

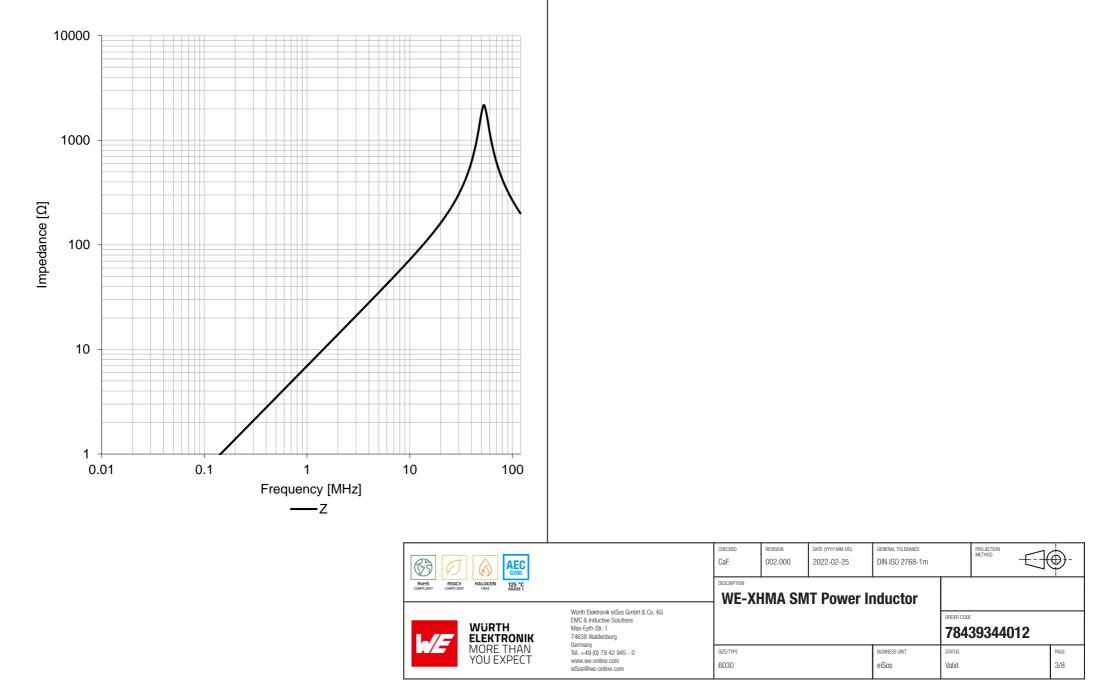
**Electrical Properties:** 

# **Typical Temperature Rise vs. Current Characteristics:**



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 elSos GmbH & Co KG products are nethiner designed nor intended for use agreement specifically governing such as 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 as 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 as a higher safety standard in (automotive control, train control, ship control), train control, t

## **Typical Impedance Characteristics:**



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 not authorized tor 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 elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability valuation checks for safety must be performed on every electronic component which is used in electrical incurbic for severamce.

## Packaging Specification - Tape: [mm]

( +

ш

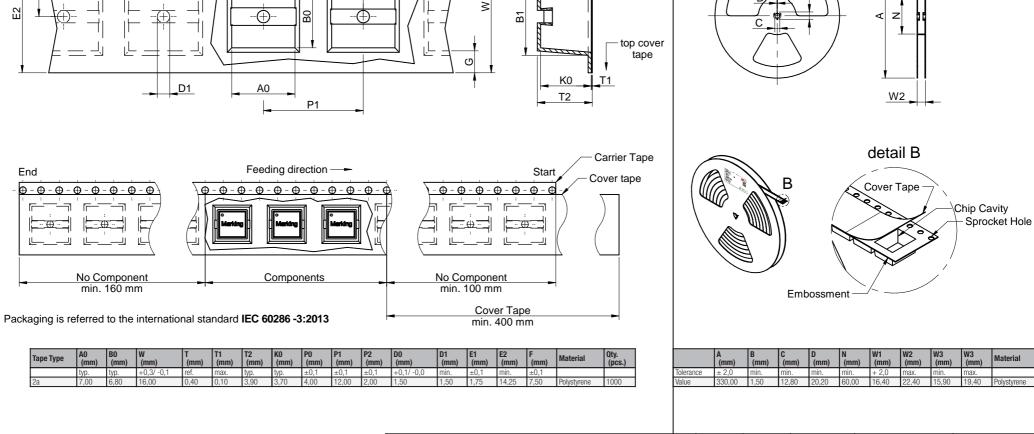
Æ

 $\oplus$ 

Ð

#### Packaging Specification - Reel: [mm] .P0 P2 D0 W3\_\_ ш -(----) $\oplus$ Ð $\oplus$ Ŧ W1 close to center Ē TITIT

7



165° - 180°	Rots COMPLIANT REACH COMPLIANT REACH PREE REACH PREACH PREE REACH PREE REACH PREE REACH			CHECKED         REVISION         DATE (YYY-MM-DD)         GENERAL TOLEPANCE           CaF         002.000         2022-02-25         DIN ISO 2768-1m			PROJECTION METHOD		
				WE-XHMA SMT Power Inductor					
		WURTH ELEKTRONIK	EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany					ORDER CODE 78439344	012
Pull-of force           Tape width         16 mm         0,1 N - 1,3 N		MORE THAN YOU EXPECT	el. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	SIZE/TYPE 6030			BUSINESS UNIT eiSos	status Valid	PAGE 4/8

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 not authorized tor 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 Warth Elektronik elSos 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 releases to safety must be performed on every electronic component which is used in electrical incuruits and enditions or performance.

Ljc. (mm)         Wic (mm)         Hic (mm)         No. of Reel (pcs.)           typ.         typ.         typ.         1000000000000000000000000000000000000		Lc (mm)         Wc (mm)         Hc (mm)         No. of Inner Carl           typ.         typ.         typ.         355,00         385,00         3	rton (pcs.) Oty. (pcs.) Material 9000 Paper
	Reach Wirth Elektronik elsos GmbH & Co. KG         Wirth Elektronik elsos GmbH & Co. KG         ELEKTRONIK MORE THAN YOU EXPECT	CaF 002.000 2022-02-25 DIN I	ORDER CODE 78439344012 ESS UNIT STATUS PAGE

Packaging Specification - Outer Carton: [mm]

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 Wirth Elektronik elSos GmbH & Co KG products are neither designed in ritended for use in areas such as a military, aerospace, availation, nuclear or notific, sharing reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Wirth Elektronik elSos GmbH & Co KG products are neither designed in ritended for use in areas such as a military, aerospace, availation, nuclear or notificant entiplication (and not electraci inccurbic), transportation fautomotive control, transportation signal, disaster prevention, medical, public information network etc... Wirth Elektronik elSos 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 more to expecte the designed on every electronic component which is used in electraci inccurbics or performance.

# **Classification Reflow Profile for SMT components:**



# Classification Reflow Soldering Profile:

		-
Profile Feature		Value
Preheat Temperature Min	T <sub>s min</sub>	150 °C
Preheat Temperature Max	T <sub>s max</sub>	200 °C
Preheat Time $\rm t_s$ from $\rm T_{smin}$ to $\rm T_{smax}$	t <sub>s</sub>	60 - 120 seconds
Ramp-up Rate (T <sub>L</sub> to T <sub>P</sub> )		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 <sub>р</sub>	$T_p \le T_c$ , see Table below
Time within 5°C of actual peak temperature	t <sub>p</sub>	20 - 30 seconds
Ramp-down Rate (T <sub>P</sub> to T <sub>L</sub> )		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.
		•

refer to IPC/ JEDEC J-STD-020E

# Package Classification Reflow Temperature (T<sub>c</sub>):

Properties	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350-2000	Volume mm <sup>3</sup> >2000
PB-Free Assembly I Package Thickness < 1.6 mm	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 I Package Thickness > 2.5 mm	250 °C	245 °C	245 °C

refer to IPC/ JEDEC J-STD-020E

		CHECKED CaF	REVISION 002.000	DATE (YYYY-MM-DD) 2022-02-25	GENERAL TOLERANCE DIN ISO 2768-1m			<b>-</b>
ROHS REACH HALOGEN 125 °C COMPLIANT COMPLIANT FREE GRADE 1								
	Würth Elektronik eiSos GmbH & Co. KG		IIVIA JIV					
WURTH						9344012		
						1043	5544012	
MORE THAN YOU EXPECT		SIZE/TYPE			BUSINESS UNIT	STATUS		PAGE
TOUEXPECT	www.we-online.com eiSos@we-online.com	6030			eiSos	Valid		6/8

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 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 elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability valuation checks for safety must be performed on every electronic component which is used in electrical incurbics or performance.

# **Cautions and Warnings:**

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

#### General:

- This electronic component is designed and manufactured for use in general electronic equipment.
- Würth Elektronik must be asked for written approval (following the PPAP procedure) before incorporating the components into any
  equipment in fields such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control,
  ship control), transportation signal, disaster prevention, medical, public information network etc. where higher safety and reliability are
  especially required and/or if there is the possibility of direct damage or human injury.
- Electronic components that will be used in safety-critical or high-reliability applications, should be pre-evaluated by the customer.
- The component is designed and manufactured to be used within the datasheet specified values. If the usage and operation conditions specified in the datasheet are not met, the wire insulation may be damaged or dissolved.
- Do not drop or impact the components, the component may be damaged.
- Würth Elektronik products are qualified according to international standards, which are listed in each product reliability report. Würth
  Elektronik does not warrant any customer qualified product characteristics beyond Würth Elektroniks' specifications, for its validity and
  sustainability over time.
- The responsibility for the applicability of the customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products also apply to customer specific products.

#### **Product specific:**

#### Soldering:

- The solder profile must comply with the technical product specifications. All other profiles will void the warranty.
- All other soldering methods are at the customers' own risk.
- Strong forces which may affect the coplanarity of the components' electrical connection with the PCB (i.e. pins), can damage the part, resulting in a void of the warranty.

#### **Cleaning and Washing:**

- Washing agents used during the production to clean the customer application might damage or change the characteristics of the wire
  insulation, marking or plating. Washing agents may have a negative effect on the long-term functionality of the product.
- Using a brush during the cleaning process may break the wire due to its small diameter. Therefore, we do not recommend using a brush during the PCB cleaning process.

### Potting:

If the product is potted in the customer application, the potting material might shrink or expand during and after hardening. Shrinking
could lead to an incomplete seal, allowing contaminants into the core. Expansion could damage the component. We recommend a
manual inspection after potting to avoid these effects.

#### **Storage Conditions:**

- A storage of Würth Elektronik products for longer than 12 months is not recommended. Within other effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.
- Do not expose the components to direct sunlight.
- The storage conditions in the original packaging are defined according to DIN EN 61760-2.
- The storage conditions stated in the original packaging apply to the storage time and not to the transportation time of the components.

#### Packaging:

• The packaging specifications apply only to purchase orders comprising whole packaging units. If the ordered quantity exceeds or is lower than the specified packaging unit, packaging in accordance with the packaging specifications cannot be ensured.

#### Handling:

- Violation of the technical product specifications such as exceeding the nominal rated current will void the warranty.
- Applying currents with audio-frequency signals may result in audible noise due to the magnetostrictive material properties.
- The temperature rise of the component must be taken into consideration. The operating temperature is comprised of ambient temperature and temperature rise of the component. The operating temperature of the component shall not exceed the maximum temperature specified.
- Due to heavy weight of the components, strong forces and high accelerations might have the effect to damage the electrical connection
  or to harm the circuit board and will void the warranty.

These cautions and warnings 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.

63 🕖	AEC (2200		CHECKED	REVISION 002.000	DATE (YYYY-MM-DD) 2022-02-25	general tolerance DIN ISO 2768-1m	_	PROJECTION METHOD	$\square$	₽-
ROHS REACH HALOGEN 125 °C COMPLIANT COMPLIANT FREE GIADE 1		WE-XHMA SMT Power Inductor								
		Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany					ORDER CODE	3934401	2	
	MORE THAN YOU EXPECT	elinainy Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	size/type 6030			BUSINESS UNIT eiSos	status Valid		1	page 7/8

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 Wirth Elektronik elSos GmbH & Co KG products are neither designed on rinended for use in equipment which is used in effective (a transportation (automotive control, train control, ship control, train control, ship control, train control, trai

# **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.

Roha Roha Company Reach Company Reach Reach Pree Reach Reach Pree Reach Pree Reach Pree Reach Pree Reach Reach Pree Reach Reach Reach PreACh Reach Reach Reach Reach Reach Reach Reach Reac		CHECKED CaF	REVISION 002.000	DATE (YYYY-MM-DD) 2022-02-25	general tolerance DIN ISO 2768-1m		PROJECTION METHOD		€-€
		WE-XHMA SMT Power Inductor							
	Wirth Elektronik elSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany					ORDER CODE	3934401	2	
MORE THAN YOU EXPECT	Tel. +49 (0) 79 42 945 - 0 www.we-online.com elSos@we-online.com	SIZE/TYPE 6030			BUSINESS UNIT eiSos	status Valid		1	<sup>2</sup> AGE B/8

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 Wirth Elektronik elSos GmbH & Co KG products are neither designed on rinended for use in equipment which is used in effective (a transportation (automotive control, train control, ship control, train control, ship control, train control, trai

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Fixed Inductors category:

Click to view products by Wurth manufacturer:

Other Similar products are found below :

CR43NP-680KC CR54NP-820KC CR54NP-8R5MC CTX32CT-100 70F224AI MGDQ4-00004-P MHL1ECTTP18NJ MHL1JCTTD12NJ PE-51506NL PE-53601NL PE-53602NL PE-53630NL PE-53824SNLT PE-62892NL PE-92100NL PG0434.801NLT PG0936.113NLT 9310-16 PM06-2N7 PM06-39NJ A01TK 1206CS-471XJ HC2-2R2TR HC2LP-R47-R HC3-2R2-R 1206CS-151XG RCH664NP-140L RCH664NP-4R7M RCH8011NP-221L RCP1317NP-332L RCP1317NP-391L RCR1010NP-470M RCR110DNP-331L DH2280-4R7M DS1608C-106 ASPI-4020HI-R10M-T B10TJ B82477P4333M B82498B3101J000 B82498B3680J000 ELJ-RE27NJF2 1812CS-153XJ 1812CS-183XJ 1812CS-223XJ 1812LS-104XJ 1812LS-105XJ 1812LS-124XJ 1812LS-154XJ 1812LS-223XJ 1812LS-224XJ