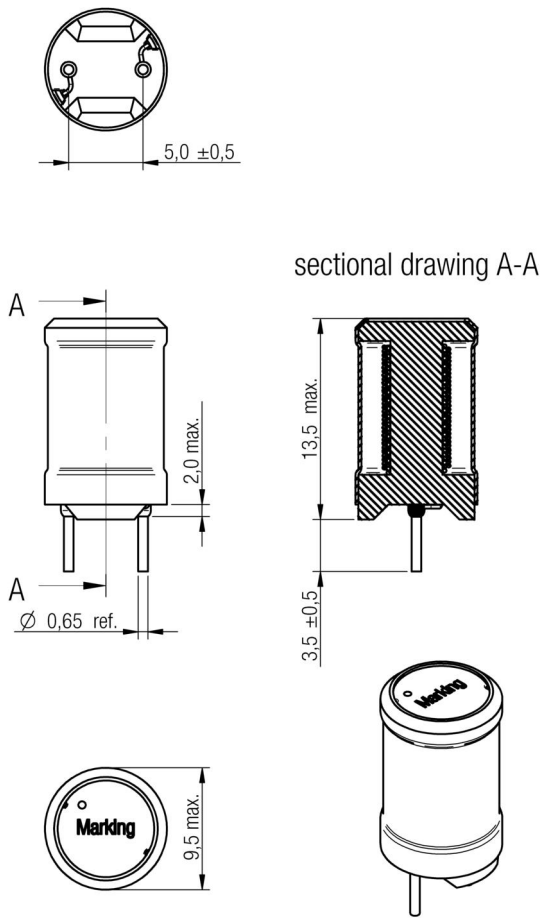
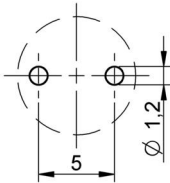


A Dimensions: [mm]



B Recommended land pattern: [mm]



C Schematic:



D Electrical Properties:

Properties	Test conditions		Value	Unit	Tol.
Inductance	100 kHz/ 5 mA	L	220	μH	±10%
Rated current	ΔT = 40 K	I _R	1.20	A	max.
Saturation current	IΔL/L < 10%	I _{sat}	1.05	A	typ.
DC Resistance		R _{DC}	0.27	Ω	typ.
DC Resistance		R _{DC}	0.29	Ω	max.
Self resonant frequency		f _{res}	3.1	MHz	typ.

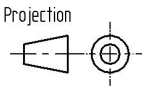
E General information:

It is recommended that the temperature of the part does not exceed 125°C under worst case operating conditions.

- Ambient temperature: -40°C to +85°C (referring to I_R)
- Operating temperature: -40°C to +125°C
- Storage temperature (on tape & reel): -20°C to +40°C; 75% RH max.
- Test conditions of Electrical Properties: 20°C, 33% RH if not specified differently

Reference on drawing	Description
•	Start of winding
Marking	221 (Inductance Code)

REV	DATE	BY	CHECKED
4.0	2016-06-16	KaS	MaKa
3.0	2016-03-23	KaS	MaKa
2.6	2014-09-10	SSt	SSt
2.5	2014-03-31	SSt	SSt
2.4	2013-04-29	SSt	SSt
2.3	2013-03-12	SSt	COt
2.2	2012-12-10	SSt	SSt



Würth Elektronik eiSos GmbH & Co. KG
EMC & Inductive Solutions
Max-Eyth-Str. 1
74638 Waldenburg
Germany
Tel. +49 (0) 79 42 945 - 0
www.we-online.com
eiSos@we-online.com

DESCRIPTION

WE-TI Radial Leaded Wire Wound Inductor

Order.- No.

7447452221

Size: 8012

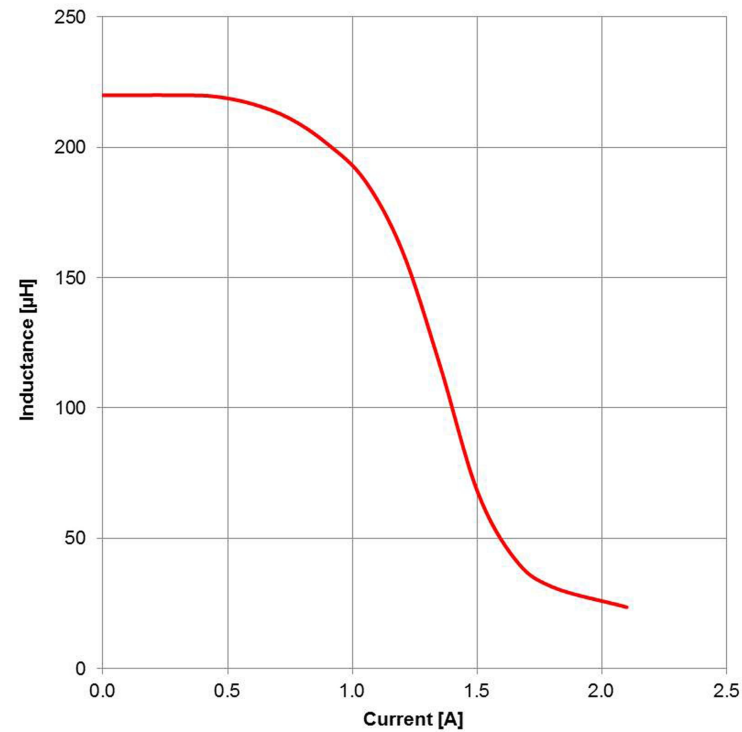


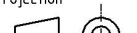
SIZE

A4



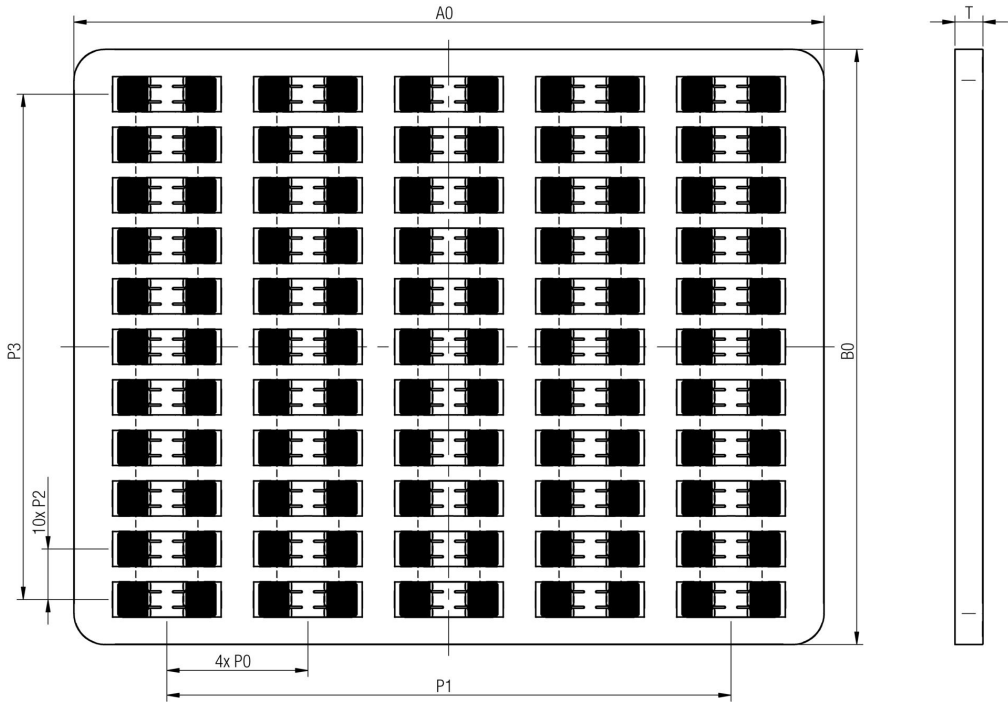
F1 Typical Inductance vs. Current Characteristics:



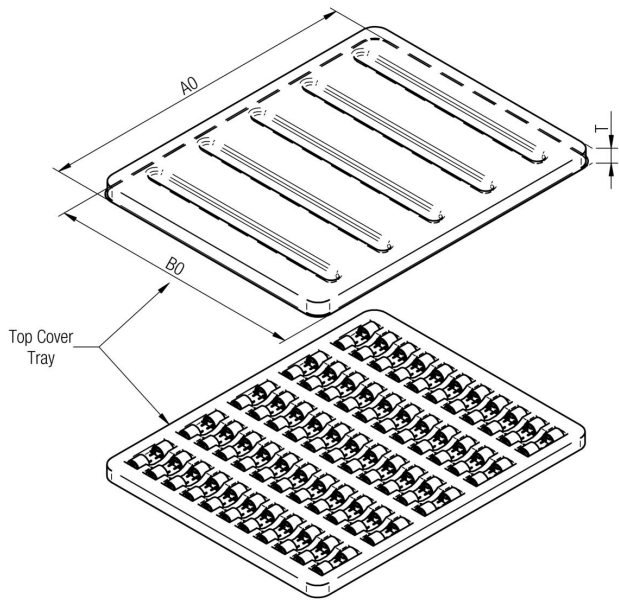
				Projection 		DESCRIPTION		
4.0	2016-06-16	KaS	MaKa					
3.0	2016-03-23	KaS	MaKa	Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	WE-TI Radial Leaded Wire Wound Inductor			
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2.4	2013-04-29	SSt	SSt					
2.3	2013-03-12	SSt	COt					
2.2	2012-12-10	SSt	SSt					
REV	DATE	BY	CHECKED					
						Order.- No.	COMPLIANT RoHS&REACH WÜRTH ELEKTRONIK	SIZE
						7447452221		A4
						Size: 8012		

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.

G1 Packaging Specification - Tray [mm]:



	A0	B0	P0	P1	P2	P3	T	Tray	VPE / packaging unit
tolerance	typ.	typ.	ref.	ref.	ref.	ref.	ref.		
size	6065	193,00	243,00	26,50	132,50	11,00	207,00	8,00	120
	8055	183,00	243,00	28,00	112,00	15,50	201,50	9,50	140
	8075	193,00	243,00	19,00	131,20	17,00	222,00	9,50	140
	8095	193,00	243,00	19,00	131,20	17,00	222,00	9,50	140
	8012	243,00	193,00	34,50	188,00	17,00	161,50	11,00	100
	8012B	193,00	243,00	25,00	150,60	14,50	217,50	10,00	100
	1014	243,00	193,00	51,00	174,00	17,00	153,00	11,00	80



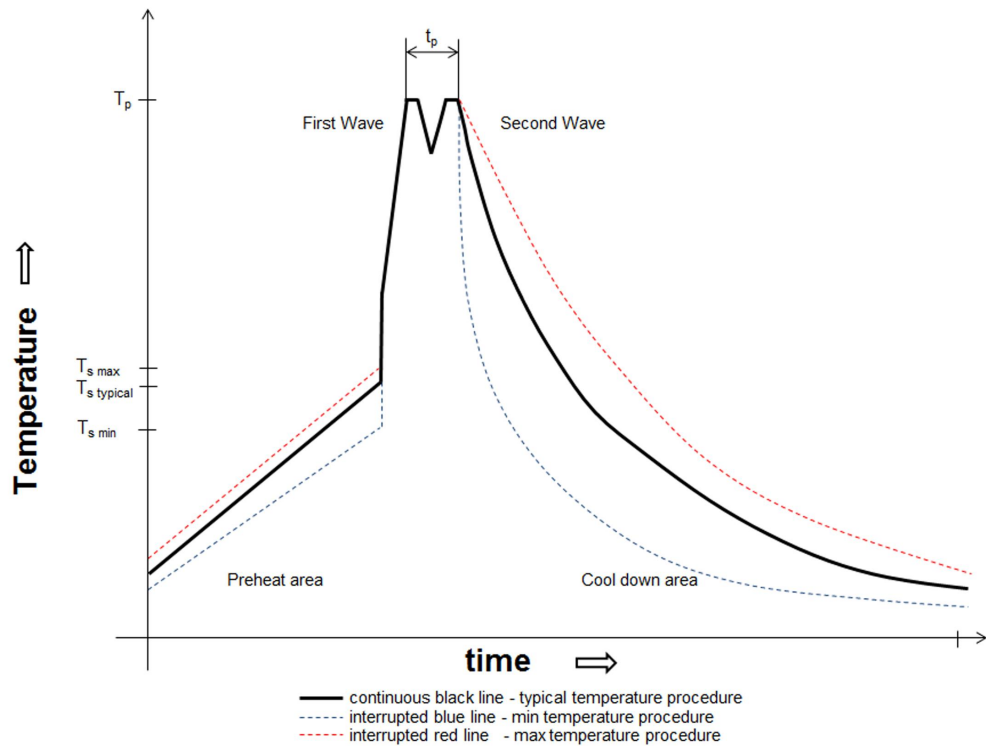
	A0	B0	T	Top Cover
tolerance	typ.	typ.	ref.	
size	6065	194,00	244,00	8,00
	8055	184,00	244,00	9,50
	8075	194,00	244,00	8,00
	8095	194,00	244,00	8,00
	8012	244,00	194,00	11,00
	8012B	194,00	244,00	10,00
	1014	244,00	194,00	11,00

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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_{smin}) - Temperature Typical ($T_{stypical}$) - Temperature Max (T_{smax}) - Time (t_s) from (T_{smin} to T_{smax})	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 (T_p)	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

I Cautions and Warnings:

The following conditions apply to all goods within the product series of WE-TI 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 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 termination.

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.

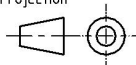
Product specific:

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 ensured.
- Violation of the technical product specifications such as exceeding the nominal rated current will void the warranty.
- Strong forces and high accelerations of the components of the sizes 1014 and 8012 might have the effect of damaging 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		
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