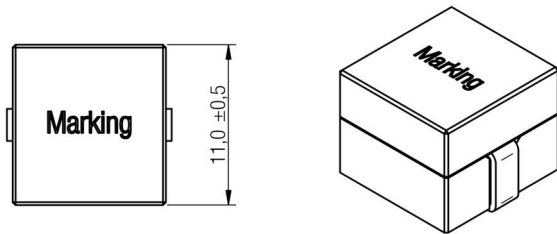
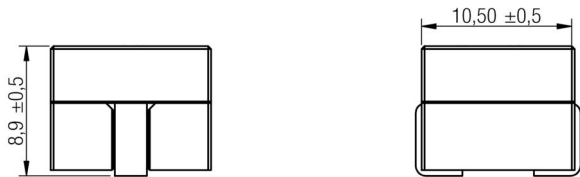
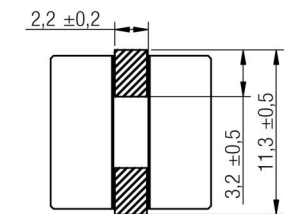
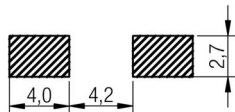


A Dimensions: [mm]



Scale - 2:1

B Recommended land pattern: [mm]



Scale - 2:1

C Schematic:



D Electrical Properties:

Properties	Test conditions		Value	Unit	Tol.
Inductance	100 kHz/ 10 mA	L	470	nH	± 20%
Rated inductance	100 kHz/ 10 mA/ 37.5 A	L <sub>R</sub>	240	nH	typ.
Rated current	ΔT = 40 K	I <sub>R</sub>	40.0	A	max.
Saturation current	IΔL/LI < 20%	I <sub>sat</sub>	35.0	A	typ.
DC Resistance	@ 20°C	R <sub>DC</sub>	0.320	mΩ	±7%
Self resonant frequency		f <sub>res</sub>	110	MHz	typ.

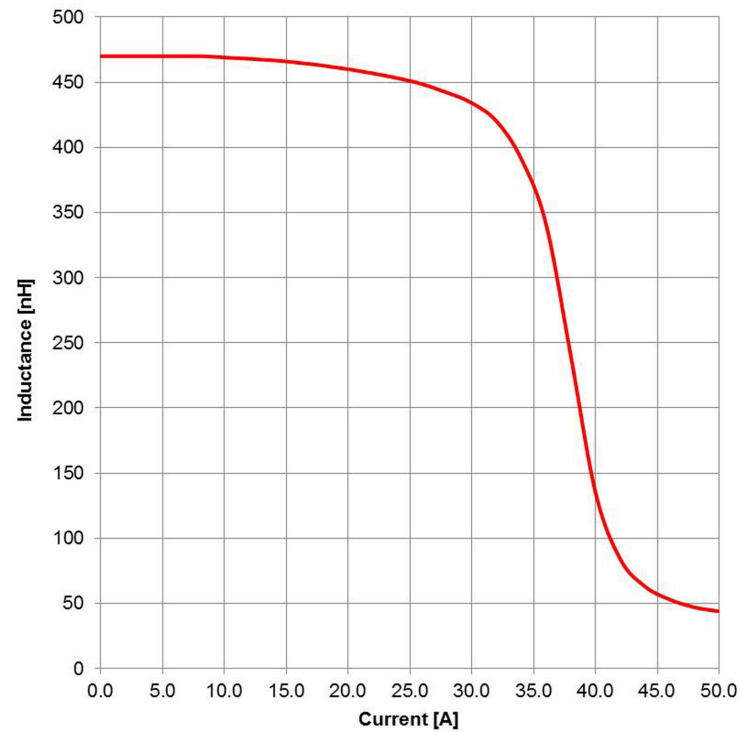
E General information:

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

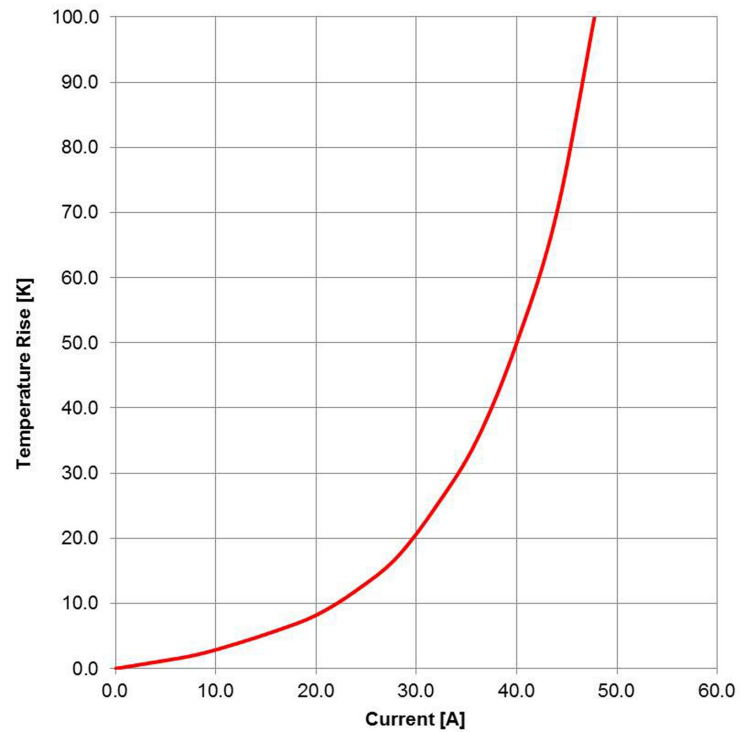
- Ambient temperature: -40°C to +85°C (referring to I<sub>R</sub>)
- Operating temperature: -40°C to +125°C
- Storage temperature (on tape & reel): -20°C to +40°C; 75% RH max.
- Test conditions of Electrical Properties: 20°C, 33% RH if not specified differently



F Typical Inductance vs. Current Characteristics:



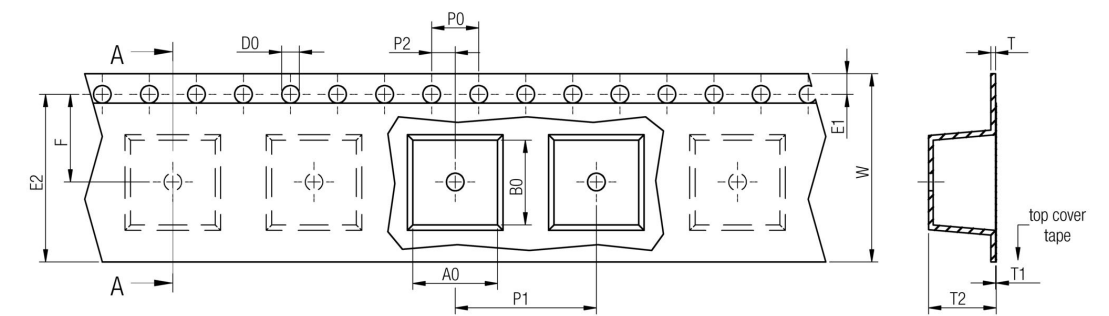
F Typical Temperature rise vs. Current Characteristics:



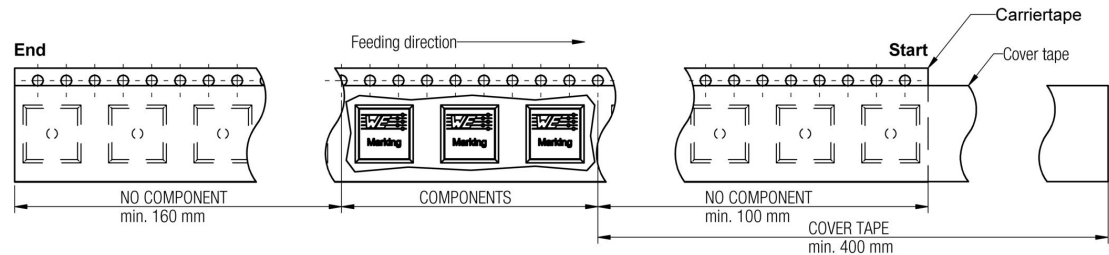
				Projection		DESCRIPTION
						<b>WE-HCM SMD High Current Flat Wire Inductor</b>
				Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com		Order.- No. <b>744301047</b>
2.0	2013-06-20	SSt	BD			COMPLIANT RoHS&REACH WÜRTH ELEKTRONIK
1.0	2010-07-16	BD	-			SIZE A4
REV	DATE	BY	CHECKED			Size: 1190

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.

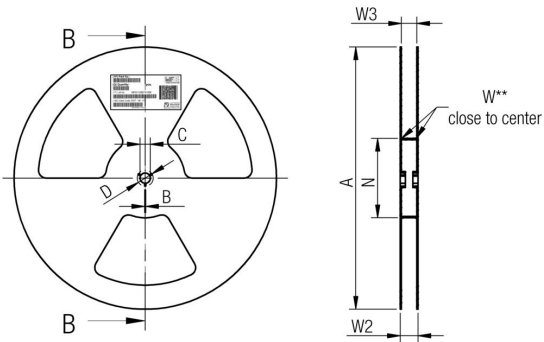
G Packaging Specification - Tape and Reel [mm]:



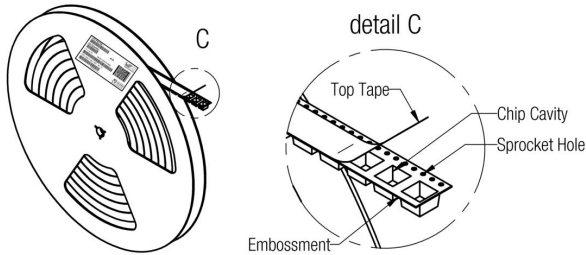
size		A0	B0	W	P1	T	T1	T2	D0	E1	E2	F	P0	P2	Tape	VPE / packaging unit
	tolerance	typ.	typ.	+0,3 -0,1	± 0,1	± 0,1	max.	typ.	+0,3 -0,1	± 0,1	min.	± 0,05	± 0,1	± 0,05		
	7070	8,10	8,30	24,00	16,00	0,45	0,10	8,00	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	500
	1050	7,10	10,30	24,00	12,00	0,45	0,10	5,80	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	1000
	1070	8,10	11,20	24,00	16,00	0,45	0,10	9,00	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	500
	1052	11,10	11,40	24,00	16,00	0,45	0,10	5,80	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	700
	1190	11,60	12,00	24,00	20,00	0,45	0,10	10,00	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	300
	1240	11,80	11,30	24,00	16,00	0,45	0,10	5,00	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	700
	1350	14,20	14,30	24,00	20,00	0,45	0,10	6,10	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	500
	1390	13,65	14,65	24,00	20,00	0,45	0,10	10,00	1,50	1,75	22,25	11,50	4,00	2,00	Polystyrene	300

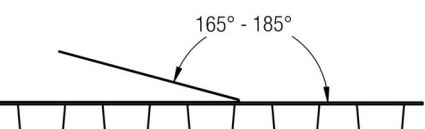
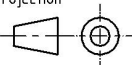



Packaging is referred to the international standard IEC 60286 -3:2007



	A	B	C	D	N	W1	W2	W3	W3
tolerance	± 2,0	min.	± 0,8	min.	min.	+ 1,5	max.	min.	max.
Tape width 24 mm	330,00	1,50	13,00	20,20	100,00	24,40	30,40	23,90	27,40



					Projection		DESCRIPTION			
							<b>WE-HCM SMD High Current Flat Wire Inductor</b>			
					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	Order.- No.		SIZE		
					<b>744301047</b>	A4				
					Size: 1190					
Tape width		24 mm	Pull-of force 0,1 N - 1,3 N		2.0	2013-06-20	SSt	BD		
					1.0	2010-07-16	BD	-		
REV		DATE		BY	CHECKED					

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.

H Soldering Specifications:



H1: Classification Reflow Profile for SMT components:



H2: Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Preheat <ul style="list-style-type: none"><li>- Temperature Min (<math>T_{smin}</math>)</li><li>- Temperature Max (<math>T_{smax}</math>)</li><li>- Time (<math>t_s</math>) from (<math>T_{smin}</math> to <math>T_{smax}</math>)</li></ul>	150°C 200°C 60-120 seconds
Ramp-up rate ( $T_L$ to $T_P$ )	3°C/ second max.
Liquidous temperature ( $T_L$ ) Time ( $t_L$ ) maintained above $T_L$	217°C 60-150 seconds
Peak package body temperature ( $T_P$ )	See Table H3
Time within 5°C of actual peak temperature ( $t_p$ )	20-30 seconds
Ramp-down rate ( $T_P$ to $T_L$ )	6°C/ second max.
Time 25°C to peak temperature	8 minutes max.

refer to IPC/JEDEC J-STD-020D

H3: Package Classification Reflow Temperature

	Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
PB-Free Assembly	< 1.6 mm	260°C	260°C	260°C
PB-Free Assembly	1.6 - 2.5 mm	260°C	250°C	245°C
PB-Free Assembly	≥ 2.5 mm	250°C	245°C	245°C

refer to IPC/JEDEC J-STD-020D

				Projection 		DESCRIPTION
						<b>WE-HCM SMD High Current Flat Wire Inductor</b>
						Order.- No.
						<b>744301047</b>
						Size: 1190
						COMPLIANT RoHS&REACH WÜRTH ELEKTRONIK
						SIZE
						A4
2.0	2013-06-20	SSt	BD			
1.0	2010-07-16	BD	-			
REV	DATE	BY	CHECKED			

# I Cautions and Warnings:

The following conditions apply to all goods within the product series of WE-HCM 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 disposal 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. Accordingly to this 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 endanger 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 for customer specific products.

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

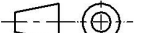

Direct mechanical impact to the product shall be prevented as the core material could flake or in the worst case it could break.

## Product specific:

Follow all instructions mentioned 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.
- 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 warranted.
- Violation of the technical product specifications such as exceeding the nominal rated current will result in the loss of warranty.
- Due to heavy weight of the components of size 2212, strong forces and high accelerations might have the effect to damage the electrical connection or to harm the circuit board and will result in the loss of warranty.



					<div>Projection</div> 		DESCRIPTION		
							<b>WE-HCM SMD High Current Flat Wire Inductor</b>		
					<div>Würth Elektronik eiSos GmbH &amp; Co. KG</div> <div>EMC &amp; Inductive Solutions</div> <div>Max-Eyth-Str. 1</div> <div>74638 Waldenburg</div> <div>Germany</div> <div>Tel. +49 (0) 79 42 945 - 0</div> <div>www.we-online.com</div> <div>eiSos@we-online.com</div>		Order.- No.	 <div>COMPLIANT</div> <div>RoHS&amp;REACH</div> <div>WÜRTH ELEKTRONIK</div>	SIZE
2.0	2013-06-20	SSt	BD			<b>744301047</b>	A4		
1.0	2010-07-16	BD	-						
REV	DATE	BY	CHECKED			Size: 1190			

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.

