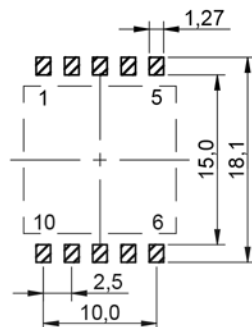


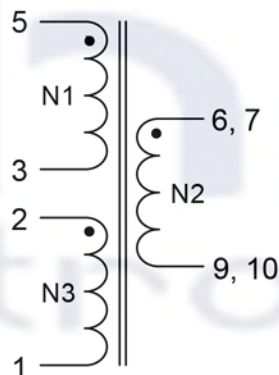
Scale - 1,5:1

## Recommended Land Pattern: [mm]



Scale - 1,5:1

## Schematic:



N2 is made of two bifilar windings. Therefore customer has to tie terminals 6+7 and 9+10 on PCB. A general separation of the two windings cannot be guaranteed.

## Electrical Properties:

Properties	Test conditions		Value	Unit	Tol.
Inductance	100 kHz/ 100 mV	L	38	μH	±10
Turns Ratio		n	5 : 1 : 2.5		±3
Saturation Current	$I_{\Delta L/L} < 20\%$	$I_{SAT}$	3.3	A	typ.
DC Resistance 1	@ 20 °C	$R_{DC}$	100	mΩ	max.
DC Resistance 2	@ 20 °C	$R_{DC}$	4.5	mΩ	max.
DC Resistance 3	@ 20 °C	$R_{DC}$	255	mΩ	max.
Leakage Inductance	100 kHz/ 100 mV	$L_S$	0.625	μH	max.
Insulation Test Voltage	N1,4 => N2,3	$U_T$	1500	V (AC)	

## General Information:

It is recommended that the temperature of the component does not exceed +125°C under worst case conditions

Operating Temperature	-40 °C up to +125 °C
Storage Temperature (in original packaging)	-20 °C up to +60 °C
Test conditions of Electrical Properties: +20°C, 33% RH if not specified differently	

Shaanxi FKS Electronic Parts Import&Export Co.,Ltd.  
FKS(Xi'an) Electronic Technology Co.,Ltd.  
Address: B1 Building,Western Cloud Valley,Fengxi New Town,  
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Tel: +86-29-8868 5333  
Fax: +86-29-8868 0913

**FKS**  
Electronics



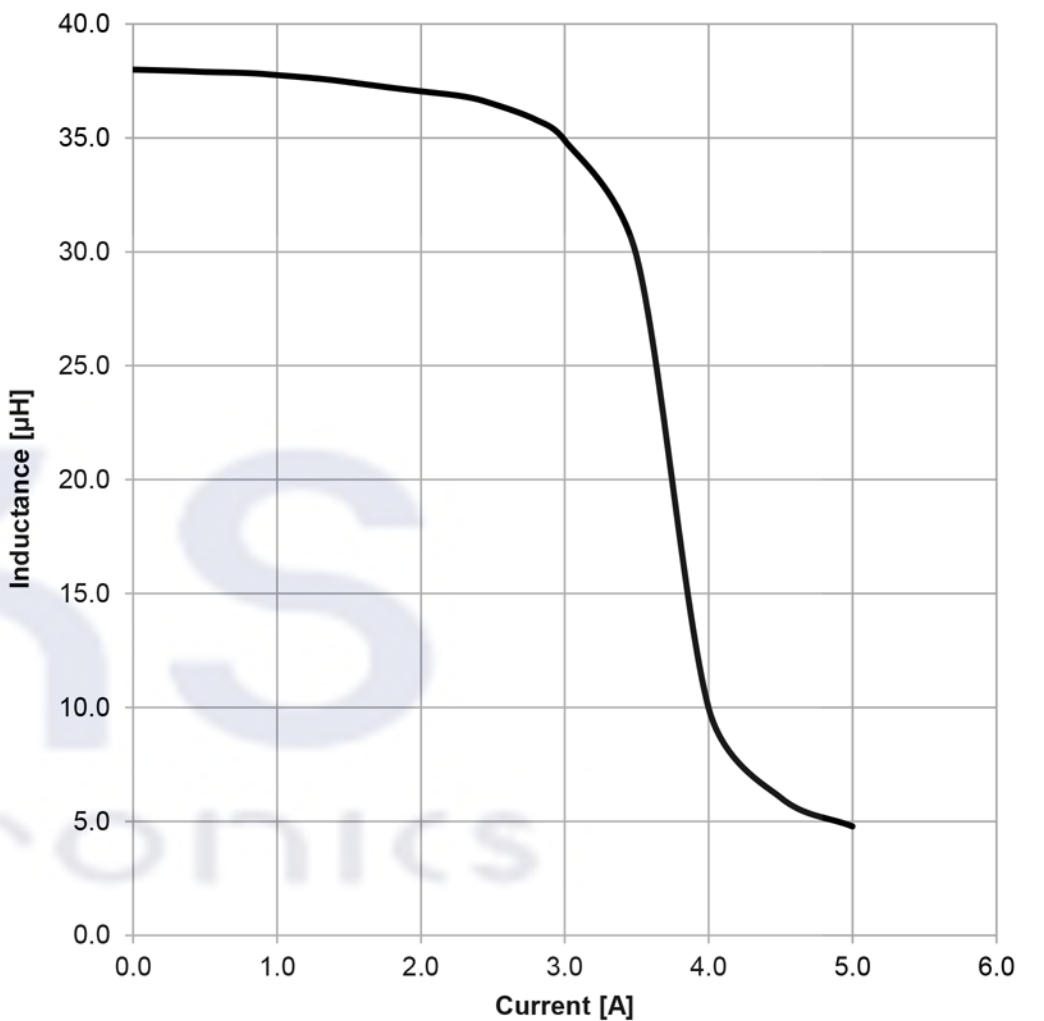
CREATED KaS	CHECKED TBr	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD 
DESCRIPTION <b>Power over Ethernet Plus Transformer</b>		ORDER CODE <b>FKS750310744</b>	
SIZE EP13	REVISION 008.000	STATUS Valid	DATE (YYYY-MM-DD) 2017-06-08
		BUSINESS UNIT eISos	PAGE 1/5




Application Properties:

Properties		Value	Unit
Input Voltage <sup>1)</sup>	U <sub>I</sub>	37 - 57 V (DC)	
Output Voltage <sup>2)</sup>	U <sub>O1</sub>	5	V
Output Current <sup>3)</sup>	I <sub>O1</sub>	5	A
Auxiliary Voltage <sup>4)</sup>	U <sub>aux</sub>	12	V
Switching Frequency	f <sub>switch</sub>	250-400 kHz	

1) N1  
2) N2  
3) N2  
4) N3

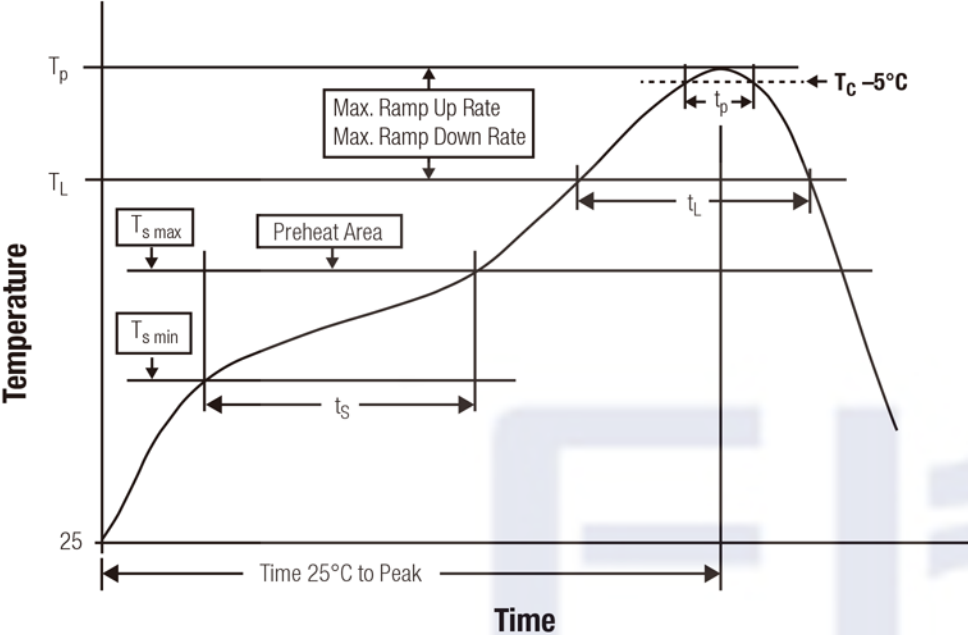
Typical Inductance vs. Current Characteristics:



Shaanxi FKS Electronic Parts Import&Export Co.,Ltd. FKS(Xi'an) Electronic Technology Co.,Ltd. Address: B1 Building,Western Cloud Valley,Fengxi New Town, Xixian New Area,Xi'an City, Shaanxi Province,China. Tel: +86-29-8868 5333 Fax: +86-29-8868 0913			CREATED KaS	CHECKED TBr	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD 	
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						PAGE 2/5	

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.

Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:



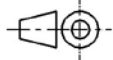
Profile Feature		Value
Preheat Temperature Min	$T_{s\ min}$	150 °C
Preheat Temperature Max	$T_{s\ max}$	200 °C
Preheat Time $t_s$ from $T_{s\ min}$ to $T_{s\ max}$	$t_s$	60 - 120 seconds
Ramp-up Rate ( $T_L$ to $T_P$ )		3 °C/ second max.
Liquidous Temperature	$T_L$	217 °C
Time $t_L$ maintained above $T_L$	$t_L$	60 - 150 seconds
Peak package body temperature	$T_P$	see table below
Time within 5°C of actual peak tempereature	$t_p$	20 - 30 seconds
Ramp-down Rate ( $T_L$ to $T_P$ )		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

refer to IPC/ JEDEC J-STD-020E

Package Classification Reflow Temperature:

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 I 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

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