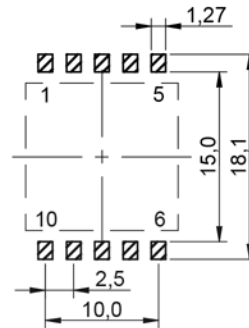


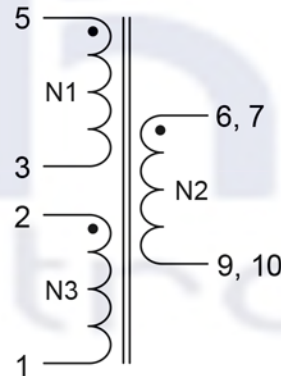
Scale - 1,5:1

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	6.67 : 1 : 4		±3
Saturation Current	ΔL/L < 20 %	I _{SAT}	3.2	A	typ.
DC Resistance 1	@ 20 °C	R _{DC}	100	mΩ	max.
DC Resistance 2	@ 20 °C	R _{DC}	6	mΩ	max.
DC Resistance 3	@ 20 °C	R _{DC}	182	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	

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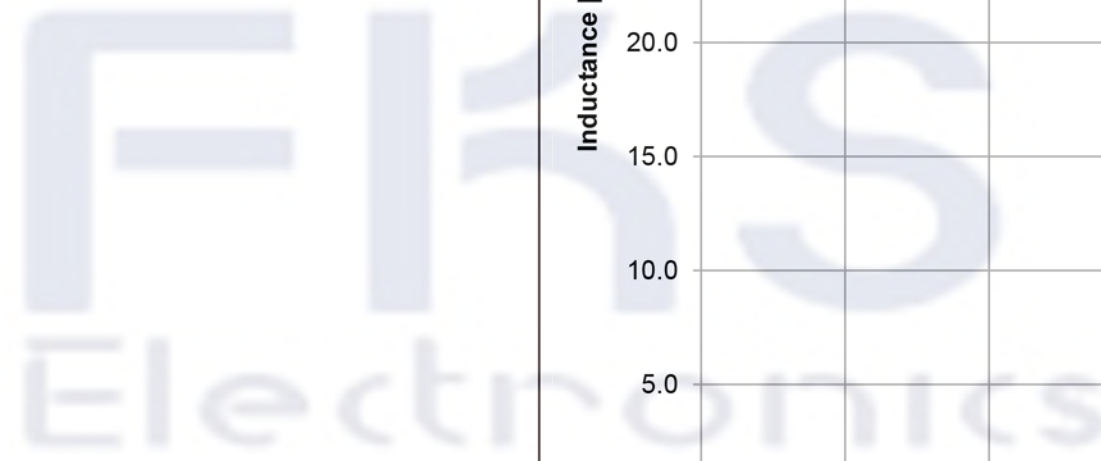
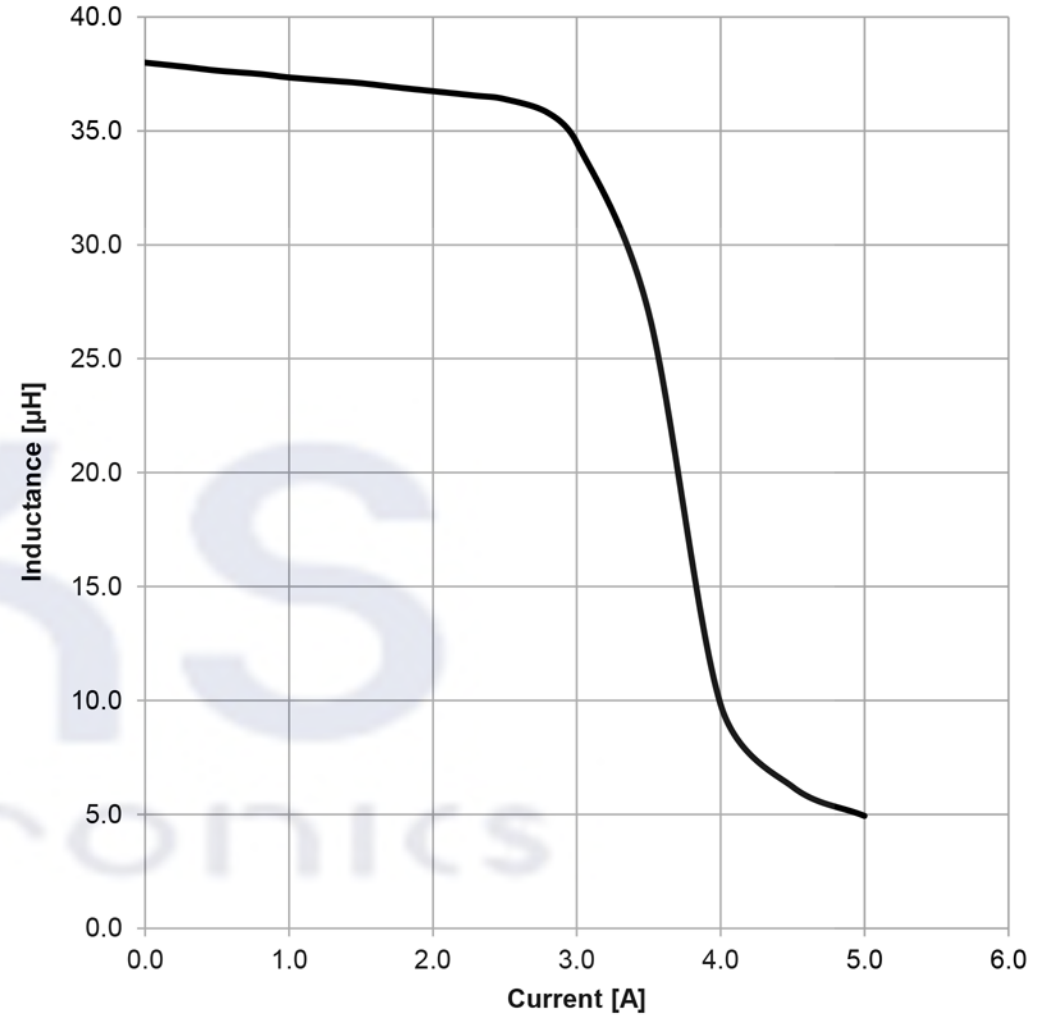
CREATED K&S	CHECKED TBr	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD
DESCRIPTION Power over Ethernet Plus Transformer		ORDER CODE FKS750310743	
SIZE EP13	REVISION 008.000	STATUS Valid	DATE (YYYY-MM-DD) 2017-06-08
		BUSINESS UNIT eISos	PAGE 1/5

Application Properties:

Properties		Value	Unit
Input Voltage ¹⁾	U_i	37 - 57 V (DC)	
Output Voltage ²⁾	U_{O1}	3.3	V
Output Current ³⁾	I_{O1}	7.5	A
Auxiliary Voltage ⁴⁾	U_{aux}	12.7	V
Switching Frequency	f_{switch}	250-400 kHz	

- ¹⁾ N1
- ²⁾ N2
- ³⁾ N2
- ⁴⁾ N3

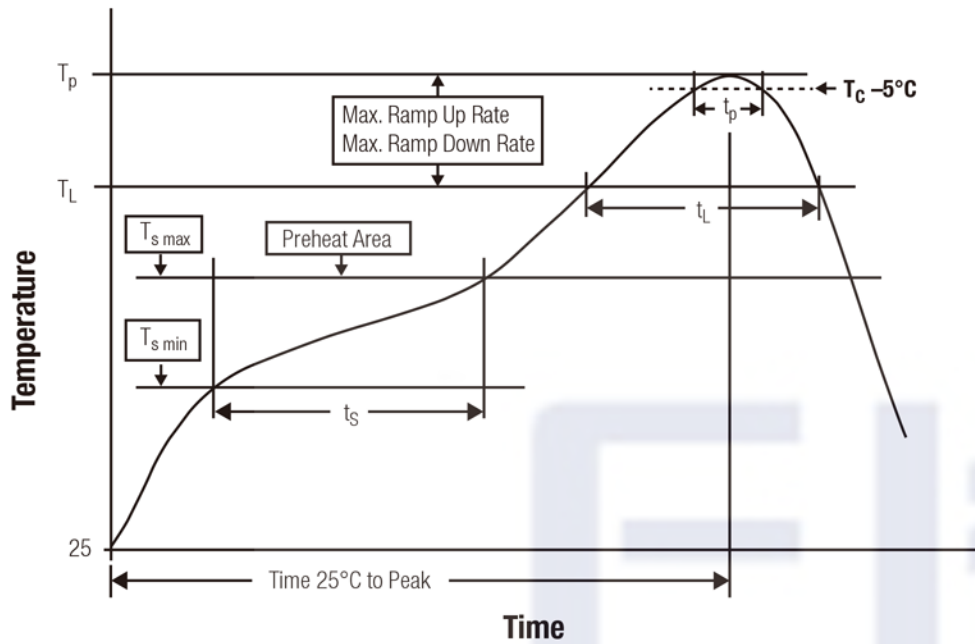
Typical Inductance vs. Current Characteristics:



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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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 temperature	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 ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly 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 Package Thickness ≥ 2.5 mm	250 °C	245 °C	245 °C

refer to IPC/ JEDEC J-STD-020E

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DESCRIPTION <h2 style="text-align: center;">Power over Ethernet Plus Transformer</h2>			ORDER CODE <h2 style="text-align: center;">FKS750310743</h2>		
SIZE EP13	REVISION 008.000	STATUS Valid	DATE (YYYY-MM-DD) 2017-06-08	BUSINESS UNIT eISos	PAGE 3/5

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