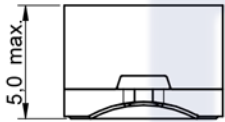
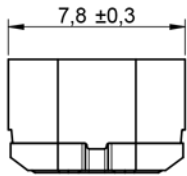
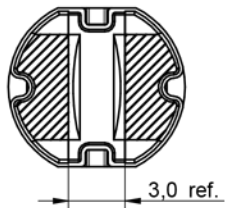


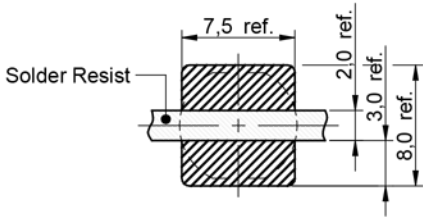
Dimensions: [mm]



Scale - 2:1

Start of Winding	•
Marking	3R9 (Inductance Code)

Recommended Land Pattern: [mm]



Scale - 2:1

Schematic:



Electrical Properties:

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	100 kHz/ 250 mV	3.9	μH	±25%
Rated Current	I _R	ΔT = 40 K	3.8	A	max.
Saturation Current	I _{SAT}	ΔL/LI < 15 %	4	A	typ.
DC Resistance	R _{DC}	@ 20 °C	16.7	mΩ	typ.
DC Resistance	R _{DC}	@ 20 °C	20	mΩ	max.
Self Resonant Frequency	f _{res}		45	MHz	typ.

Certification:

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [JEDEC JS709B]
Halogen Free	Conform [IEC 61249-2-21]

General Information:

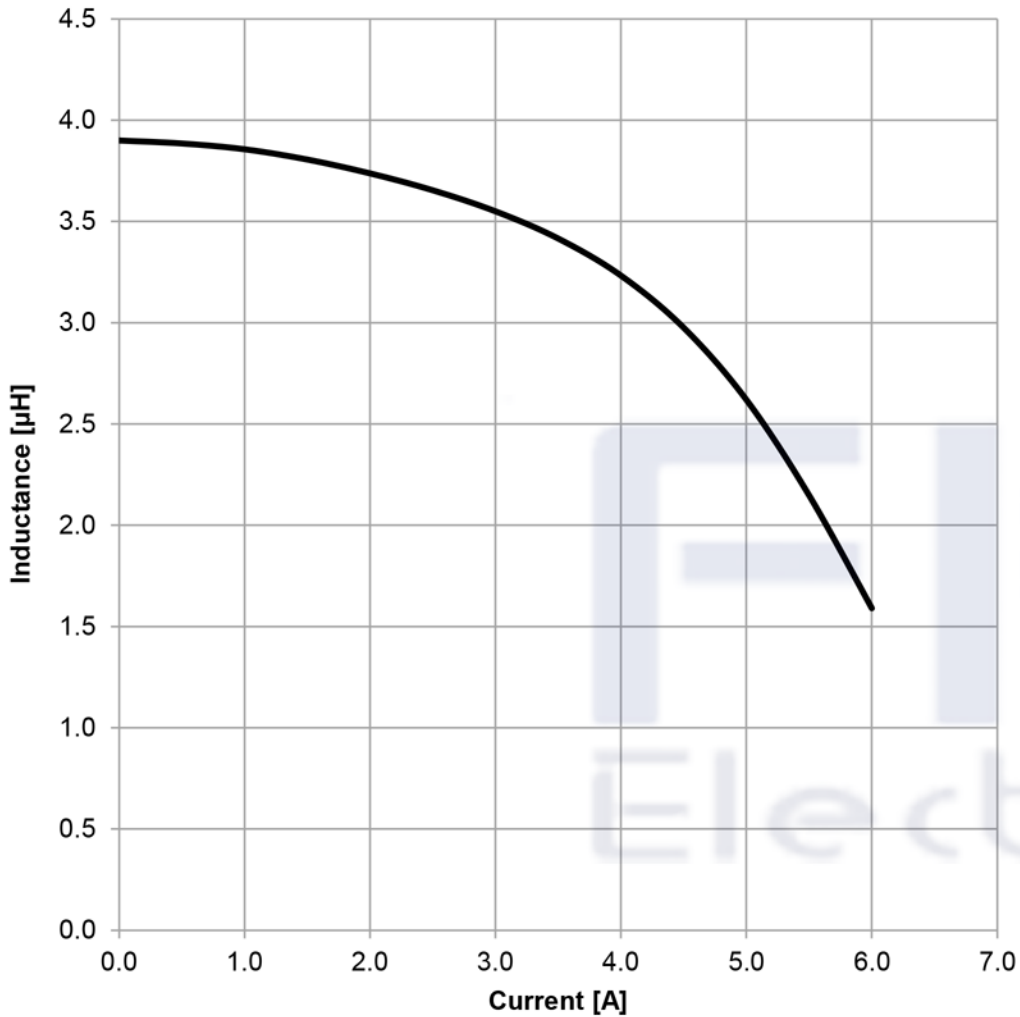
It is recommended that the temperature of the component does not exceed +125 °C under worst case conditions	
Ambient Temperature (referring to I _R)	-50 up to +110 °C
Operating Temperature	-50 up to +150 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Moisture Sensitivity Level (MSL)	1
Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently	



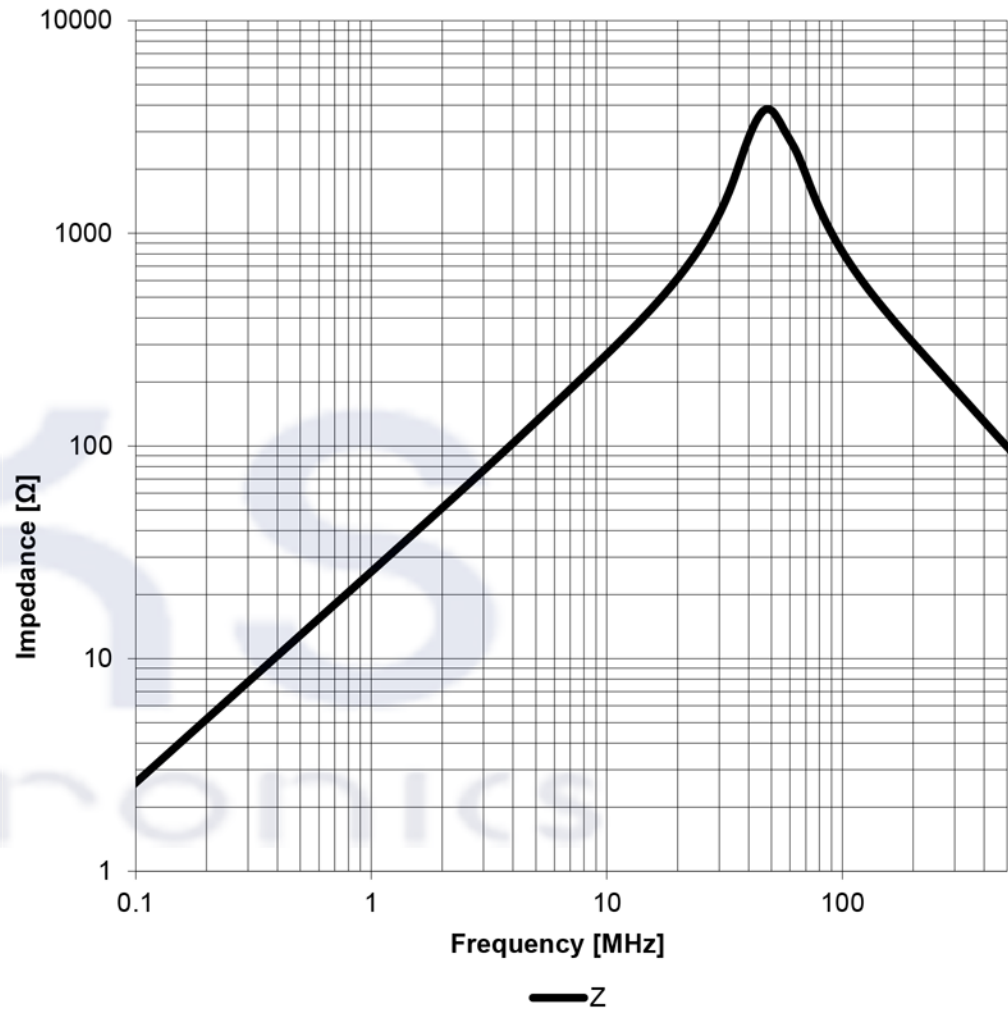
FKS Electronics
Shaanxi FKS Electronic Parts Import&Export Co.,Ltd.
Address:Building B1,The West Cloud Valley, Fengxi New City,
Xixian New Area,Xianyang City,Shaanxi Province,China.
Tel:0086 29 8868 5333 Fax:0086 29 8868 0913
[Http://www.fks-tech.com](http://www.fks-tech.com)

DATE (YYYY-MM-DD) 2019-10-14	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD
DESCRIPTION 1 SMT Power Inductor		ORDER CODE FKS784787039
SIZE/TYPE 7850		STATUS Valid

Typical Inductance vs. Current Characteristics:

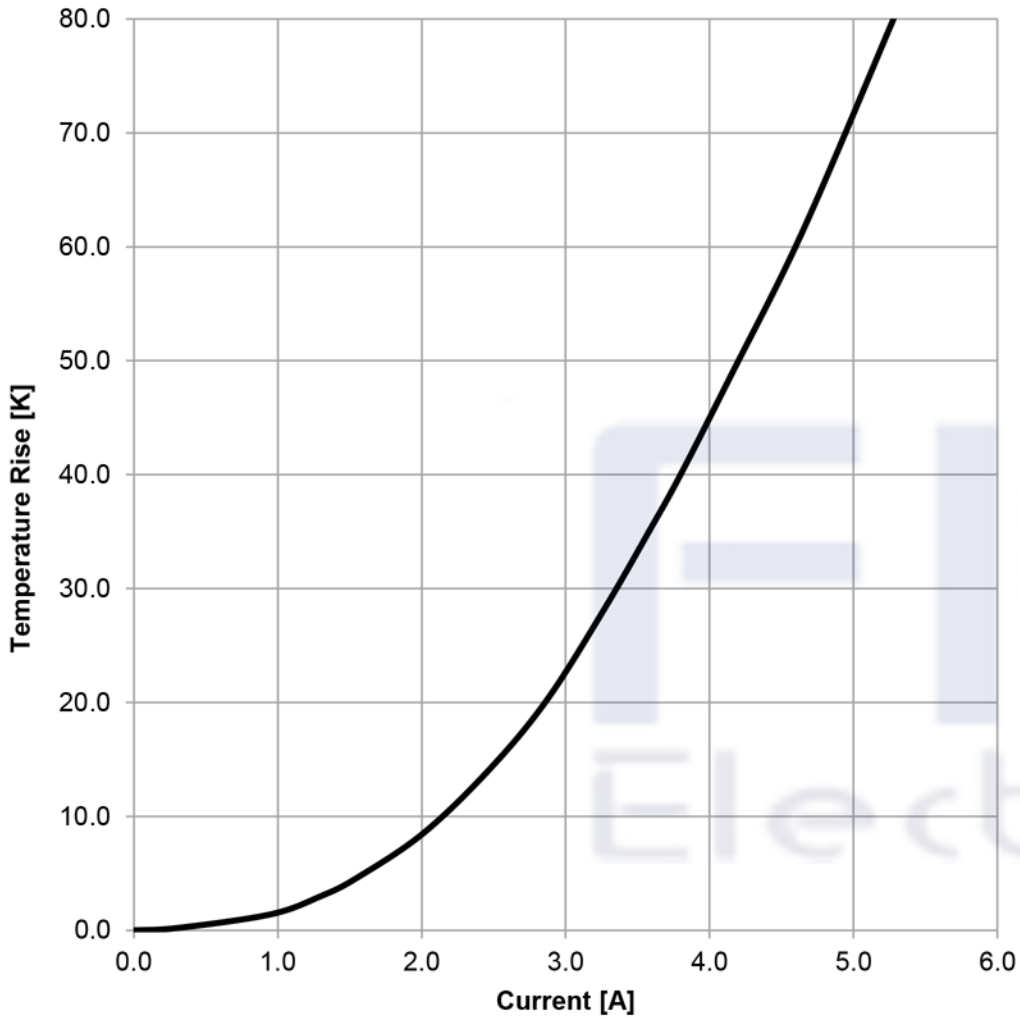


Typical Impedance Characteristics:



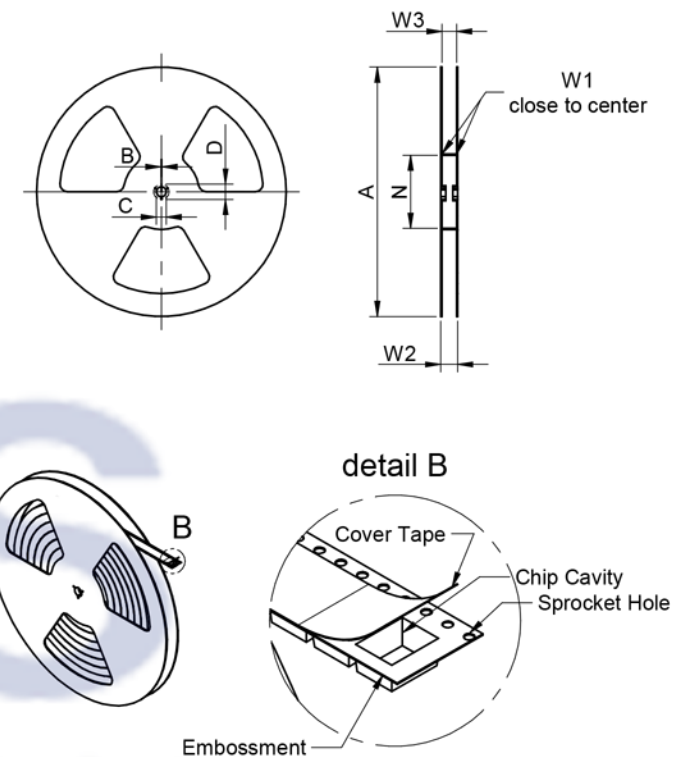
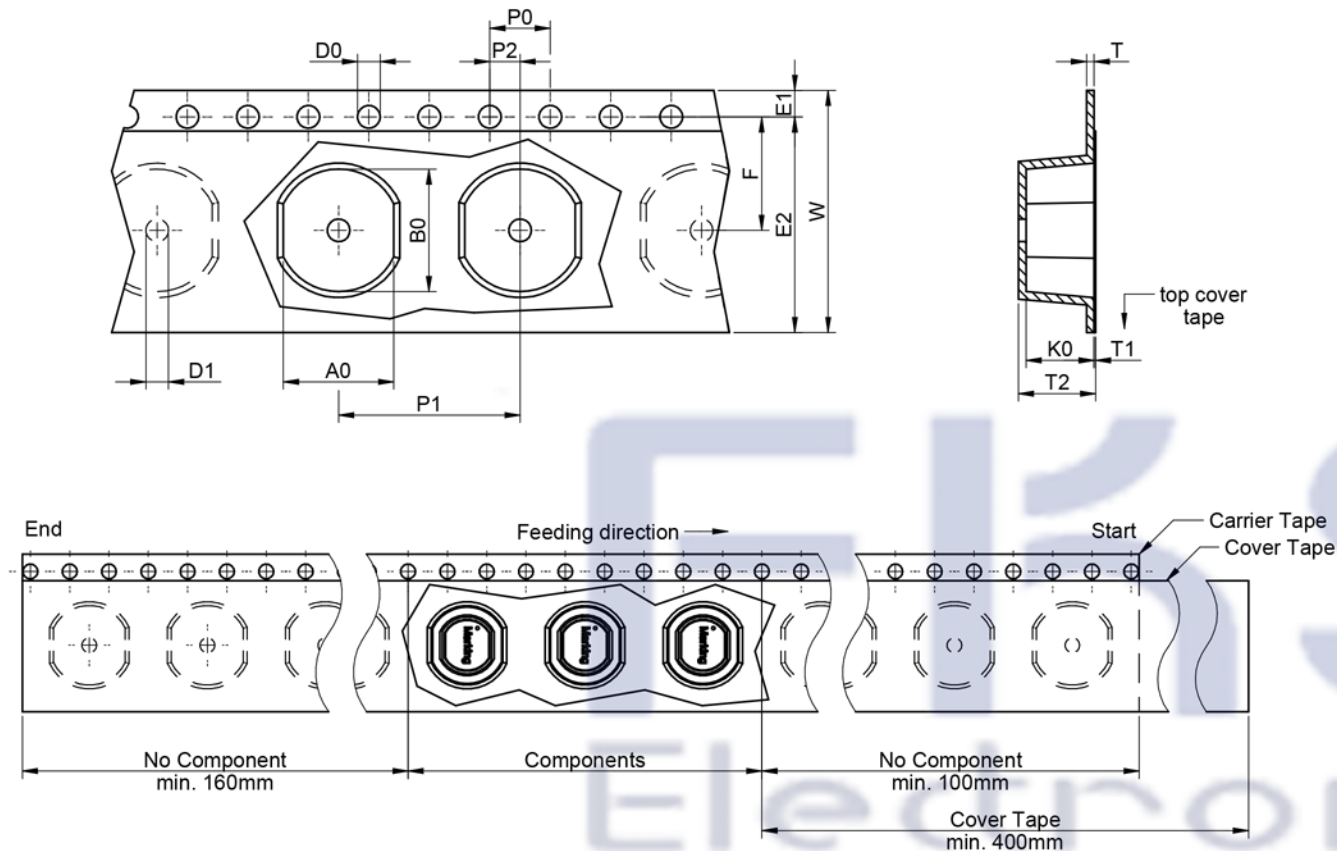
 RoHS COMPLIANT  REACH COMPLIANT  HALOGEN FREE  AEC Q200				DATE (YYYY-MM-DD) 2019-10-14		GENERAL TOLERANCE DIN ISO 2768-1m		PROJECTION METHOD 	
  Shaanxi FKS Electronic Parts Import&Export Co.,Ltd. Address:Building B1,The West Cloud Valley, Fengxi New City, Xixian New Area,Xianyang City,Shaanxi Province,China. Tel:0086 29 8868 5333 Fax:0086 29 8868 0913 Http://www.fks-tech.com				DESCRIPTION SMT Power Inductor			ORDER CODE FKS784787039		
							SIZE/TYPE 7850		STATUS Valid

Typical Temperature Rise vs. Current Characteristics:



RoHS COMPLIANT REACH COMPLIANT HALOGEN FREE AEC Q200 150 °C GRADE 6 FKS Electronics Shaanxi FKS Electronic Parts Import&Export Co.,Ltd. Address:Building B1,The West Cloud Valley, Fengxi New City, Xixian New Area,Xianyang City,Shaanxi Province,China. Tel:0086 29 8868 5333 Fax:0086 29 8868 0913 Http://www.fks-tech.com		DATE (YYYY-MM-DD) 2019-10-14 GENERAL TOLERANCE DIN ISO 2768-1m PROJECTION METHOD 	
DESCRIPTION 1 SMT Power Inductor		ORDER CODE FKS784787039	
SIZE/TYPE 7850			STATUS Valid

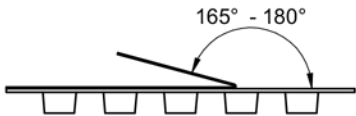
Packaging Specification - Tape and Reel: [mm]



Packaging is referred to the international standard IEC 60286 -3:2013

	A0	B0	W	T	T1	T2	K0	P0	P1	P2	D0	D1	E1	E2	F	Tape Type 2a	VPE / packaging unit
tolerance	typ.	typ.	±0.3	typ.	typ.	typ.	typ.	±0.1	±0.1	±0.1	+0.1/-0.0	typ.	±0.1	min.	±0.1		pcs.
size	7850	7,30	8,10	16,00	0,50	0,05	5,50	4,90	4,00	12,00	2,00	1,50	1,75	14,25	7,50	Polystyrene	1000

	A	B	C	D	N	W1	W2/W3
tolerance	±2.0	±0.5	±0.5	±0.5	±0.5	+0.4	±0.5
tape width	16mm	330.0	2.0	13.0	21.0	100.0	16.4

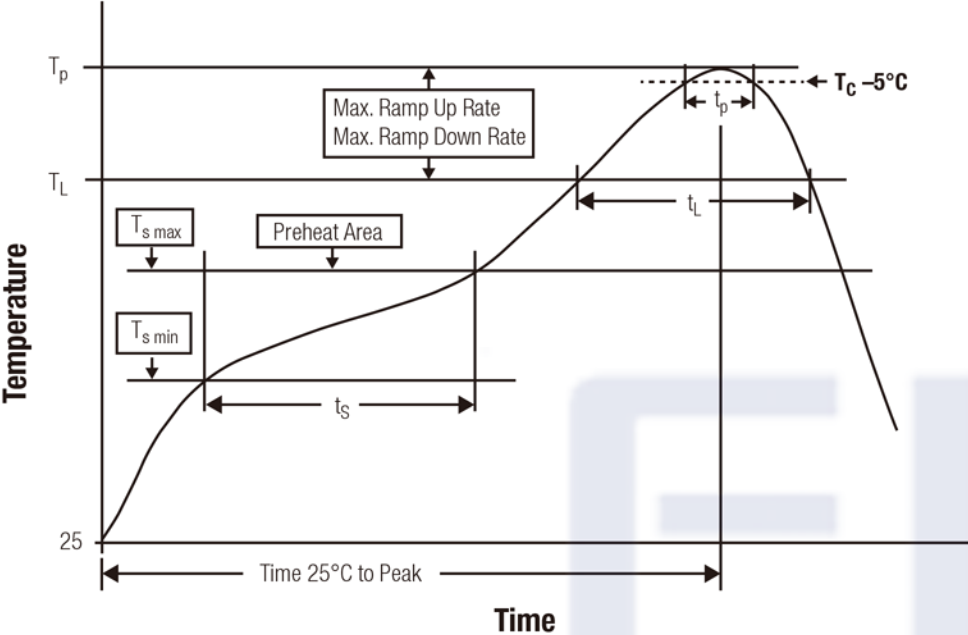


	Pull-of force
Tape width	16 mm
	0,1 N - 1,3 N

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DATE (YYYY-MM-DD)	2019-10-14	GENERAL TOLERANCE	DIN ISO 2768-1m	PROJECTION METHOD	
DESCRIPTION		SMT Power Inductor		ORDER CODE	
SIZE/TYPE		7850		STATUS	
				Valid	

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 tempreature	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 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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		SIZE/TYPE 7850		STATUS Valid