Features:

- Provides magnetic shielding against radiation
- Designed to provide higher current to meet portable computer requirements
- LPS2618 uses ceramic base with gold plating
- LPS5137 / 7360 uses LCP plastic base
- Contact Stackpole for additional inductance values
- Find environmental information and packaging specification in related supplemental documents
- 100% RoHS compliant and lead free without exemption
- Halogen free
- REACH compliant

Applications:

- GPS and PDAs
- Personal computers
- DC/DC converters

Inductance and Current ranges

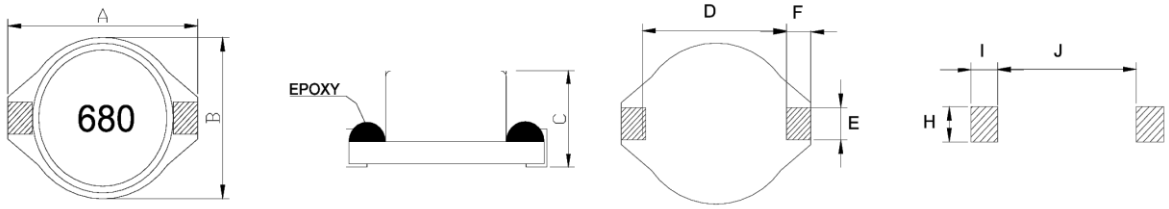
Type	Inductance (µH)	Current Range (A)
LPS2618	1 ~ 10000	1.4 ~ 0.02
LPS5137	1 ~ 1000	5.6 ~ 0.32
LPS7360	1 ~ 1000	20 ~ 0.8

Electrical specification at 25°C

Performance Characteristics

Item	Specification
Saturation Rated Current (IDC)	The DC current when the inductance becomes 10% (1608 becomes 30%) lower than its initial value. (Ta = 25ºC)
Temperature Rise Current (I rms)	The actual current when temperature of coil becomes Δ 40ºC. (Ta = 25ºC)
Operating Temperature Range	-40 ~ 125ºC

Mechanical Specifications



Type / Code	A max.	B max.	C max.	D	E	F	H	I	J	Unit
LPS2618	0.260 6.60	0.175 4.45	0.115 2.92	0.170 4.32	0.050 1.27	0.040 1.02	0.140 3.56	0.055 1.40	0.160 4.06	inches mm
LPS5137	0.510 12.95	0.370 9.40	0.205 5.21	0.300 7.62	0.100 2.54	0.100 2.54	0.110 2.79	0.115 2.92	0.290 7.37	inches mm
LPS7360	0.730 18.54	0.600 15.24	0.300 7.62	0.500 12.70	0.100 2.54	0.100 2.54	0.110 2.79	0.115 2.92	0.490 12.45	inches mm

Electrical Specifications – LPS2618

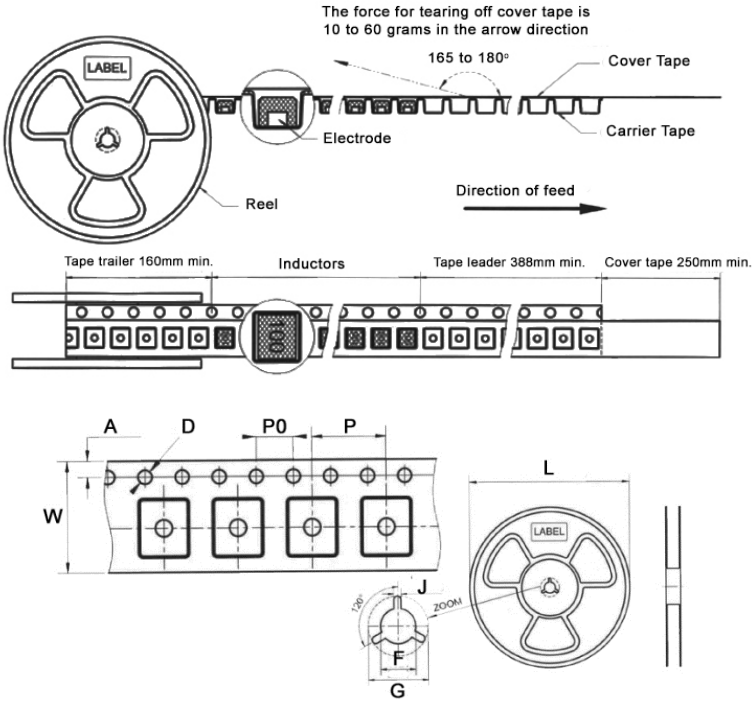
Type / Code	L (µH)	Tolerance	Test Condition		DCR (Ω) max.	SRF ref (MHz)	Q min.	IDC (A) max.	
			L	Q				I sat	I rms
LPS2618MT1R0	1	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.04	250	30	1.4	3
LPS2618MT1R5	1.5	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.045	125	30	0.93	2.3
LPS2618MT2R2	2.2	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.05	120	40	0.92	1.8
LPS2618MT3R3	3.3	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.055	120	40	0.75	1.6
LPS2618MT4R7	4.7	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.06	105	40	0.58	1.4
LPS2618MT6R8	6.8	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.065	50	40	0.58	1.2
LPS2618MT100	10	20%	100 KHz, 0.1 V	200 KHz, 0.1 V	0.075	38	40	0.37	1
LPS2618MT150	15	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.09	33	40	0.31	0.8
LPS2618MT220	22	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.11	25	40	0.3	0.7
LPS2618MT330	33	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.19	20	40	0.24	0.6
LPS2618MT470	47	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.23	20	40	0.24	0.5
LPS2618MT680	68	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.29	15	40	0.17	0.4
LPS2618MT101	100	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.48	10	40	0.13	0.3
LPS2618MT151	150	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.59	9	40	0.1	0.26
LPS2618MT221	220	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	0.9	6	40	0.1	0.22
LPS2618MT331	330	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	1.4	5	40	0.07	0.2
LPS2618MT471	470	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	1.8	4	40	0.06	0.19
LPS2618MT681	680	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	2.2	3	40	0.06	0.18
LPS2618MT102	1000	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	3.4	2	40	0.05	0.15
LPS2618MT152	1500	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	4.2	2	50	0.04	0.12
LPS2618MT222	2200	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	8.5	2	50	0.03	0.1
LPS2618MT332	3300	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	11	1	50	0.02	0.08
LPS2618MT472	4700	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	13.9	1	50	0.02	0.06
LPS2618MT682	6800	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	25	1	50	0.02	0.04
LPS2618MT103	10000	20%	100 KHz, 0.1 V	100 KHz, 0.1 V	32.8	0.8	50	0.02	0.02

Electrical Specifications – LPS5137

Type / Code	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
LPS5137MT1R0	1	20%	100 KHz, 0.1 V	0.021	5.6
LPS5137MT1R5	1.5	20%	100 KHz, 0.1 V	0.022	5.2
LPS5137MT2R2	2.2	20%	100 KHz, 0.1 V	0.032	5
LPS5137MT3R3	3.3	20%	100 KHz, 0.1 V	0.039	3.9
LPS5137MT4R7	4.7	20%	100 KHz, 0.1 V	0.054	3.2
LPS5137MT6R8	6.8	20%	100 KHz, 0.1 V	0.075	2.8
LPS5137MT100	10	20%	100 KHz, 0.1 V	0.101	2.4
LPS5137MT120	12	20%	100 KHz, 0.1 V	0.14	2.1
LPS5137MT150	15	20%	100 KHz, 0.1 V	0.15	2
LPS5137MT180	18	20%	100 KHz, 0.1 V	0.2	1.7
LPS5137MT220	22	20%	100 KHz, 0.1 V	0.207	1.6
LPS5137MT270	27	20%	100 KHz, 0.1 V	0.3	1.5
LPS5137MT330	33	20%	100 KHz, 0.1 V	0.334	1.4
LPS5137MT390	39	20%	100 KHz, 0.1 V	0.46	1.1
LPS5137MT470	47	20%	100 KHz, 0.1 V	0.472	1
LPS5137MT680	68	20%	100 KHz, 0.1 V	0.66	0.9
LPS5137MT101	100	20%	100 KHz, 0.1 V	1.11	0.8
LPS5137MT121	120	20%	100 KHz, 0.1 V	1.3	0.62
LPS5137MT151	150	20%	100 KHz, 0.1 V	1.55	0.6
LPS5137MT221	220	20%	100 KHz, 0.1 V	2	0.5
LPS5137MT271	270	20%	100 KHz, 0.1 V	4.6	0.42
LPS5137MT331	330	20%	100 KHz, 0.1 V	5.6	0.35
LPS5137MT391	390	20%	100 KHz, 0.1 V	6.6	0.34
LPS5137MT471	470	20%	100 KHz, 0.1 V	7.6	0.33
LPS5137MT102	1000	20%	100 KHz, 0.1 V	8.3	0.32

Electrical Specifications – LPS7360					
Type / Code	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
LPS7360MT1R0	1	20%	100 KHz, 0.1 V	0.024	20
LPS7360MT2R2	2.2	20%	100 KHz, 0.1 V	0.026	11
LPS7360MT3R3	3.3	20%	100 KHz, 0.1 V	0.029	10
LPS7360MT3R9	3.9	20%	100 KHz, 0.1 V	0.03	8.5
LPS7360MT4R7	4.7	20%	100 KHz, 0.1 V	0.032	8.4
LPS7360MT5R6	5.6	20%	100 KHz, 0.1 V	0.034	8.3
LPS7360MT6R8	6.8	20%	100 KHz, 0.1 V	0.036	8.2
LPS7360MT8R2	8.2	20%	100 KHz, 0.1 V	0.038	8.1
LPS7360MT100	10	20%	100 KHz, 0.1 V	0.04	8
LPS7360MT120	12	20%	100 KHz, 0.1 V	0.046	7.1
LPS7360MT150	15	20%	100 KHz, 0.1 V	0.048	7
LPS7360MT180	18	20%	100 KHz, 0.1 V	0.056	6.1
LPS7360MT220	22	20%	100 KHz, 0.1 V	0.059	6
LPS7360MT270	27	20%	100 KHz, 0.1 V	0.066	5.1
LPS7360MT330	33	20%	100 KHz, 0.1 V	0.075	5
LPS7360MT390	39	20%	100 KHz, 0.1 V	0.92	4.1
LPS7360MT470	47	20%	100 KHz, 0.1 V	0.097	4
LPS7360MT560	56	20%	100 KHz, 0.1 V	0.132	3.1
LPS7360MT680	68	20%	100 KHz, 0.1 V	0.138	3
LPS7360MT820	82	20%	100 KHz, 0.1 V	0.202	2.5
LPS7360MT101	100	20%	100 KHz, 0.1 V	0.207	2.4
LPS7360MT121	120	20%	100 KHz, 0.1 V	0.286	2.2
LPS7360MT151	150	20%	100 KHz, 0.1 V	0.293	2.1
LPS7360MT181	180	20%	100 KHz, 0.1 V	0.42	1.91
LPS7360MT221	220	20%	100 KHz, 0.1 V	0.47	1.9
LPS7360MT271	270	20%	100 KHz, 0.1 V	0.72	1.12
LPS7360MT331	330	20%	100 KHz, 0.1 V	0.78	1.1
LPS7360MT391	390	20%	100 KHz, 0.1 V	1.02	1.1
LPS7360MT471	470	20%	100 KHz, 0.1 V	1.08	1.1
LPS7360MT561	560	20%	100 KHz, 0.1 V	1.32	0.97
LPS7360MT681	680	20%	100 KHz, 0.1 V	1.4	0.96
LPS7360MT821	820	20%	100 KHz, 0.1 V	1.96	0.81
LPS7360MT102	1000	20%	100 KHz, 0.1 V	2.01	0.8

Packaging Specifications



Type / Code	A	D	P0	P	W	F	G	J	L	Unit
LPS2618	0.069 ± 0.004	0.059 ± 0.004	0.157 ± 0.004	0.315	0.630	0.512 ± 0.039	0.906 ± 0.039	0.098 ± 0.020	12.992 ± 7.008	Inches
	1.75 ± 0.10	1.50 ± 0.10	4.00 ± 0.10	8.00	16.00	13.00 ± 1.00	23.00 ± 1.00	2.50 ± 0.50	330.00 ± 178.00	mm
LPS5137	0.069 ± 0.004	0.059 ± 0.004	0.157 ± 0.004	0.472	0.945	0.512 ± 0.039	0.906 ± 0.039	0.098 ± 0.020	12.992 ± 7.008	Inches
	1.75 ± 0.10	1.50 ± 0.10	4.00 ± 0.10	12.00	24.00	13.00 ± 1.00	23.00 ± 1.00	2.50 ± 0.50	330.00 ± 178.00	mm
LPS7360	0.069 ± 0.004	0.059 ± 0.004	0.157 ± 0.004	0.787	1.260	0.512 ± 0.039	0.906 ± 0.039	0.098 ± 0.020	12.992 ± 7.008	Inches
	1.75 ± 0.10	1.50 ± 0.10	4.00 ± 0.10	20.00	32.00	13.00 ± 1.00	23.00 ± 1.00	2.50 ± 0.50	330.00 ± 178.00	mm

Environmental Specifications - General

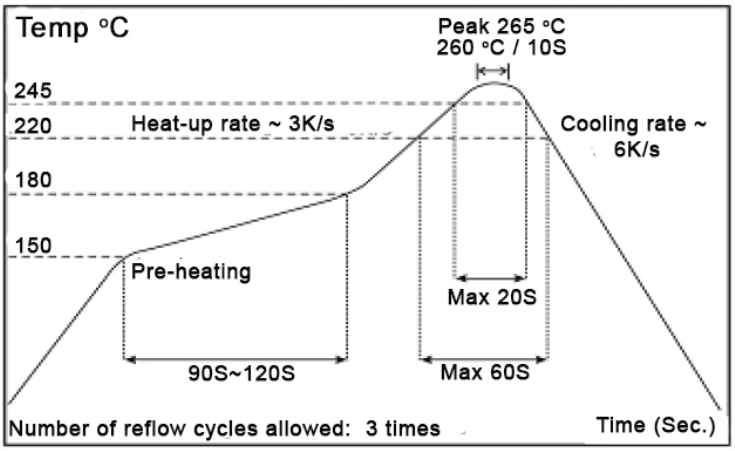
Item	Specification
Shelf Storage Conditions	Temperature range: 25 ± 3°C. Humidity: < 80% relative humidity. Recommended product should be used within six months from the time of delivery.

Environmental Test

Test	Test Specification	Test Condition
High Temperature Storage Test	No case deformation or change in appearance. Δ L/L ≤10%	Temperature 85 ± 2°C Time: 48 ± 2 hours Tested after 1 hour at room temperature
Low Temperature Storage Test		Temperature -25 ± 2°C Time: 48 ± 2 hours Tested after 1 hour at room temperature
Humidity Test		Temperature 40 ± 2°C, 90 ~ 95% relative humidity Time: 96 ± 2 hours Tested after 1 hour at room temperature
Thermal Shock Test		First -25°C 30 minutes, then 25°C 10 minutes, last 85°C 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature

Mechanical Test		
Test	Test Specification	Test Condition
Solderability Test	Terminal area must have 90% minimum solder coverage	Product with lead-free terminal: Dip pads in flux then dip in solder pot at 245 ± 5°C for 3 seconds
Resistance to Soldering Heat	No case deformation or change in appearance	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130 ~ 150°C. immersing to 260 ± 5°C for 10 seconds
Vibration Test	No case deformation or change in appearance Δ L/L ≤10%	Apply frequency 10 ~ 55 Hz 1.5 mm amplitude in each of perpendicular direction for 2 hours
Shock Resistance		Drop down with 981 m/s^2 (100 G) shock attitude upon a rubber block method shock testing machine for 1 time in each of three orientations.

Reflow Chart:



RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

RoHS Compliance Status						
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
LPS	Shielded SMD Power Inductor	SMD	YES	100% Matte Sn	Aug-05	05/31

"Conflict Metals" Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order

1	2	3	4	5	6	7	8	9	10	11	12
L	**P**	**S**	**2**	**6**	**1**	**8**	**M**	**T**	**1**	**0**	**1**

Product Series	
LPS	SMD Power Inductor

Size	Dimensions
2618	6.6 x 4.45 x 2.92
5137	12.95 x 9.4 x 5.21
7360	18.54 x 15.24 x 7.62

Tolerance	
Code	Tol
M	±20%

Packaging			
Code	Description	Size	Quantity
T	13" Tape and Reel	2618	2,000
		5137	1,000
		7360	250

Inductance	
Code	Inductance (µH)
1R1	1.1
470	47
101	100
332	3300
103	10000

Legacy Part Number:

1	2	3	4	5	6	7	8	9	10	11
P	**S**	**1**	**6**	**0**	**8**	**M**	**T**	**1**	**0**	**1**

Product Series	
PS	SMD Power Inductor

Size	Dimensions (mm)
1608	6.6x4.45x2.92
3316	12.95x9.4x5.21
5022	18.54x15.24x7.62

Tolerance	
Code	Tol
K	±10%
M	±20%

Packaging			
Code	Description	Size	Quantity
T	13" Tape and Reel	1608	2,000
		3316	1,000
		5022	250

Inductance	
Code	Inductance (µH)
1R1	1.1
470	47
101	100
332	3300
103	10000