

Features:

- Provides high power and high saturation
- LP2618 uses ceramic base with gold-plating (all others use LCP plastic base)
- Operating temperature range of -40°C to +125°C
- UL94-V0 compliant
- 100% RoHS compliant and lead free without exemption
- Halogen free
- REACH compliant
- Contact Stackpole for additional inductance values



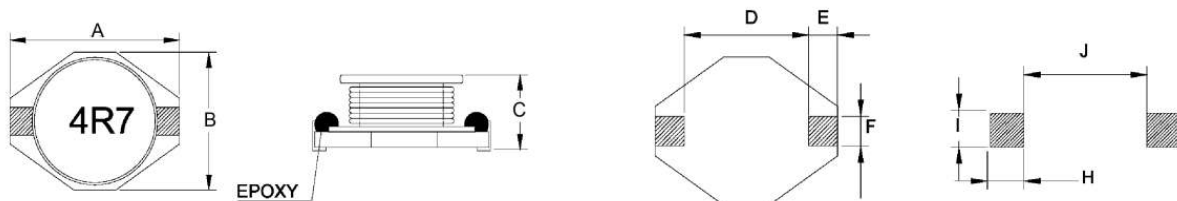
Applications:

- DC/DC Converters
- LCD televisions
- Personal computers
- Flash memory programmers
- Power supplies

Inductance and Current Ranges		
Type/Code	Inductance (µH)	Range (A)
LP2618	1 ~ 1000	2.90 ~ 0.1
LP5137...-LP	1 ~ 1000	5.15 ~ 0.1
LP5137	0.68 ~ 10000	11 ~ 0.1
LP5137...-HP	0.47 ~ 1000	40 ~ 0.8
LP7360	1 ~ 1000	20 ~ 1

Electrical specifications at 25°C

Mechanical Specifications



Type/Code	A Max.	B Max.	C Max.	D	E	F	H	I	J	Unit
LP2618	0.260 6.60	0.175 4.45	0.115 2.92	0.170 4.32	0.040 1.02	0.050 1.27	0.055 1.40	0.140 3.56	0.160 4.06	inches mm
LP5137...-LP	0.510 12.95	0.370 9.40	0.118 3.00	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
LP5137	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
LP5137...-HP	0.510 12.95	0.370 9.40	0.450 11.43	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
LP7360	0.730 18.54	0.600 15.24	0.280 7.11	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 – LP2618

Type/Code	Inductance (μ h)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP2618MT1R0	1	20%	100 KHz, 0.1V	0.05	2.9
LP2618MT1R5	1.5	20%	100 KHz, 0.1V	0.06	2.6
LP2618MT2R2	2.2	20%	100 KHz, 0.1V	0.07	2.3
LP2618MT3R3	3.3	20%	100 KHz, 0.1V	0.08	2
LP2618MT4R7	4.7	20%	100 KHz, 0.1V	0.09	1.5
LP2618MT6R8	6.8	20%	100 KHz, 0.1V	0.13	1.2
LP2618MT8R2	8.2	20%	100 KHz, 0.1V	0.16	1.15
LP2618MT100	10	20%	100 KHz, 0.1V	0.16	1.1
LP2618MT150	15	20%	100 KHz, 0.1V	0.23	0.9
LP2618MT220	22	20%	100 KHz, 0.1V	0.37	0.7
LP2618MT330	33	20%	100 KHz, 0.1V	0.51	0.58
LP2618MT470	47	20%	100 KHz, 0.1V	0.64	0.5
LP2618MT680	68	20%	100 KHz, 0.1V	0.86	0.4
LP2618MT101	100	20%	100 KHz, 0.1V	1.27	0.31
LP2618MT151	150	20%	100 KHz, 0.1V	2	0.27
LP2618MT221	220	20%	100 KHz, 0.1V	3.11	0.22
LP2618MT331	330	20%	100 KHz, 0.1V	3.8	0.18
LP2618MT471	470	20%	100 KHz, 0.1V	5.06	0.16
LP2618MT681	680	20%	100 KHz, 0.1V	9.2	0.14
LP2618MT102	1000	20%	100 KHz, 0.1V	13.8	0.1

Electrical Specifications – LP5137(LP)

Type/Code	Inductance (μ h)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP5137MT1R0-LP	1	20%	100 KHz, 0.1V	0.024	5.15
LP5137MT4R7-LP	4.7	20%	100 KHz, 0.1V	0.036	4.2
LP5137MT6R8-LP	6.8	20%	100 KHz, 0.1V	0.06	3.9
LP5137MT8R2-LP	8.2	20%	100 KHz, 0.1V	0.08	2.42
LP5137MT100-LP	10	20%	100 KHz, 0.1V	0.11	2.4
LP5137MT150-LP	15	20%	100 KHz, 0.1V	0.12	2.3
LP5137MT220-LP	22	20%	100 KHz, 0.1V	0.18	1.8
LP5137MT330-LP	33	20%	100 KHz, 0.1V	0.25	1.6
LP5137MT470-LP	47	20%	100 KHz, 0.1V	0.32	1.3
LP5137MT680-LP	68	20%	100 KHz, 0.1V	0.54	1.1
LP5137MT101-LP	100	20%	100 KHz, 0.1V	0.69	0.87
LP5137MT151-LP	150	20%	100 KHz, 0.1V	0.94	0.74
LP5137MT221-LP	220	20%	100 KHz, 0.1V	1.6	0.56
LP5137MT331-LP	330	20%	100 KHz, 0.1V	2.15	0.5
LP5137MT471-LP	470	20%	100 KHz, 0.1V	3.3	0.4
LP5137MT681-LP	680	20%	100 KHz, 0.1V	4.4	0.33
LP5137MT821-LP	820	20%	100 KHz, 0.1V	5.8	0.15
LP5137MT102-LP	1000	20%	100 KHz, 0.1V	8.4	0.1

Electrical Specifications – LP5137(standard)

Type/Code	Inductance (μ h)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP5137MTR68	0.68	20%	100KHz, 0.1V	0.008	11
LP5137MT1R0	1	20%	100KHz, 0.1V	0.009	9
LP5137MT1R2	1.2	20%	100KHz, 0.1V	0.01	8.5
LP5137MT1R5	1.5	20%	100KHz, 0.1V	0.01	8
LP5137MT1R8	1.8	20%	100KHz, 0.1V	0.011	7.5
LP5137MT2R2	2.2	20%	100KHz, 0.1V	0.012	7.1
LP5137MT2R7	2.7	20%	100KHz, 0.1V	0.014	6.6
LP5137MT3R3	3.3	20%	100KHz, 0.1V	0.015	6.5
LP5137MT4R7	4.7	20%	100KHz, 0.1V	0.018	5.5
LP5137MT5R6	5.6	20%	100KHz, 0.1V	0.025	4.8
LP5137MT6R8	6.8	20%	100KHz, 0.1V	0.027	4.7

Electrical Specifications – LP5137(standard) (cont.)

Type/Code	Inductance (µh)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP5137MT8R2	8.2	20%	100 KHz, 0.1V	0.036	4.1
LP5137MT100	10	20%	100 KHz, 0.1V	0.038	3.9
LP5137MT120	12	20%	100 KHz, 0.1V	0.044	3.3
LP5137MT150	15	20%	100 KHz, 0.1V	0.046	3.1
LP5137MT180	18	20%	100 KHz, 0.1V	0.066	2.8
LP5137MT220	22	20%	100 KHz, 0.1V	0.085	2.6
LP5137MT270	27	20%	100 KHz, 0.1V	0.095	2.1
LP5137MT330	33	20%	100 KHz, 0.1V	0.1	2
LP5137MT390	39	20%	100 KHz, 0.1V	0.13	1.8
LP5137MT470	47	20%	100 KHz, 0.1V	0.14	1.7
LP5137MT560	56	20%	100 KHz, 0.1V	0.19	1.6
LP5137MT680	68	20%	100 KHz, 0.1V	0.2	1.5
LP5137MT820	82	20%	100 KHz, 0.1V	0.26	1.3
LP5137MT101	100	20%	100 KHz, 0.1V	0.28	1.25
LP5137KT101	100	10%	100 KHz, 0.1V	0.28	1.5
LP5137MT121	120	20%	100 KHz, 0.1V	0.36	1.05
LP5137MT151	150	20%	100 KHz, 0.1V	0.4	1.05
LP5137MT181	180	20%	100 KHz, 0.1V	0.54	0.85
LP5137MT221	220	20%	100 KHz, 0.1V	0.61	0.82
LP5137MT271	270	20%	100 KHz, 0.1V	0.84	0.65
LP5137MT331	330	20%	100 KHz, 0.1V	1.02	0.62
LP5137MT391	390	20%	100 KHz, 0.1V	1.25	0.55
LP5137MT471	470	20%	100 KHz, 0.1V	1.27	0.52
LP5137MT561	560	20%	100 KHz, 0.1V	1.85	0.45
LP5137MT681	680	20%	100 KHz, 0.1V	2.02	0.42
LP5137MT821	820	20%	100 KHz, 0.1V	2.53	0.38
LP5137MT102	1000	20%	100 KHz, 0.1V	3	0.35
LP5137KT102	1000	10%	1 KHz, 0.25V	3.9	0.35
LP5137KT152	1500	10%	1 KHz, 0.25V	6.3	0.3
LP5137KT222	2200	10%	1 KHz, 0.25V	8.2	0.24
LP5137MT103	10000	20%	1 KHz, 0.25V	39	0.1

Electrical Specifications – LP5137(HP)

Type/Code	Inductance (µh)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP5137MTR47-HP	0.47	20%	100 KHz, 0.1V	0.008	20
LP5137MTR82-HP	0.82	20%	100 KHz, 0.1V	0.009	20
LP5137MT1R2-HP	1.2	20%	100 KHz, 0.1V	0.01	20
LP5137MT1R5-HP	1.5	20%	100 KHz, 0.1V	0.01	20
LP5137MT2R2-HP	2.2	20%	100 KHz, 0.1V	0.012	18.5
LP5137MT3R5-HP	3.5	20%	100 KHz, 0.1V	0.015	18
LP5137MT4R7-HP	4.7	20%	100 KHz, 0.1V	0.02	13
LP5137MT5R6-HP	5.6	20%	100 KHz, 0.1V	0.022	12
LP5137MT6R8-HP	6.8	20%	100 KHz, 0.1V	0.03	10
LP5137MT8R2-HP	8.2	20%	100 KHz, 0.1V	0.033	9
LP5137MT100-HP	10	20%	100 KHz, 0.1V	0.04	8
LP5137MT120-HP	12	20%	100 KHz, 0.1V	0.042	7.2
LP5137MT150-HP	15	20%	100 KHz, 0.1V	0.05	7
LP5137MT180-HP	18	20%	100 KHz, 0.1V	0.052	5.7
LP5137MT220-HP	22	20%	100 KHz, 0.1V	0.066	5.5
LP5137MT270-HP	27	20%	100 KHz, 0.1V	0.072	4.2
LP5137MT330-HP	33	20%	100 KHz, 0.1V	0.08	4
LP5137MT390-HP	39	20%	100 KHz, 0.1V	0.092	3.9
LP5137MT470-HP	47	20%	100 KHz, 0.1V	0.11	3.8
LP5137MT560-HP	56	20%	100 KHz, 0.1V	0.15	3.2
LP5137MT680-HP	68	20%	100 KHz, 0.1V	0.17	3
LP5137MT820-HP	82	20%	100 KHz, 0.1V	0.2	2.6

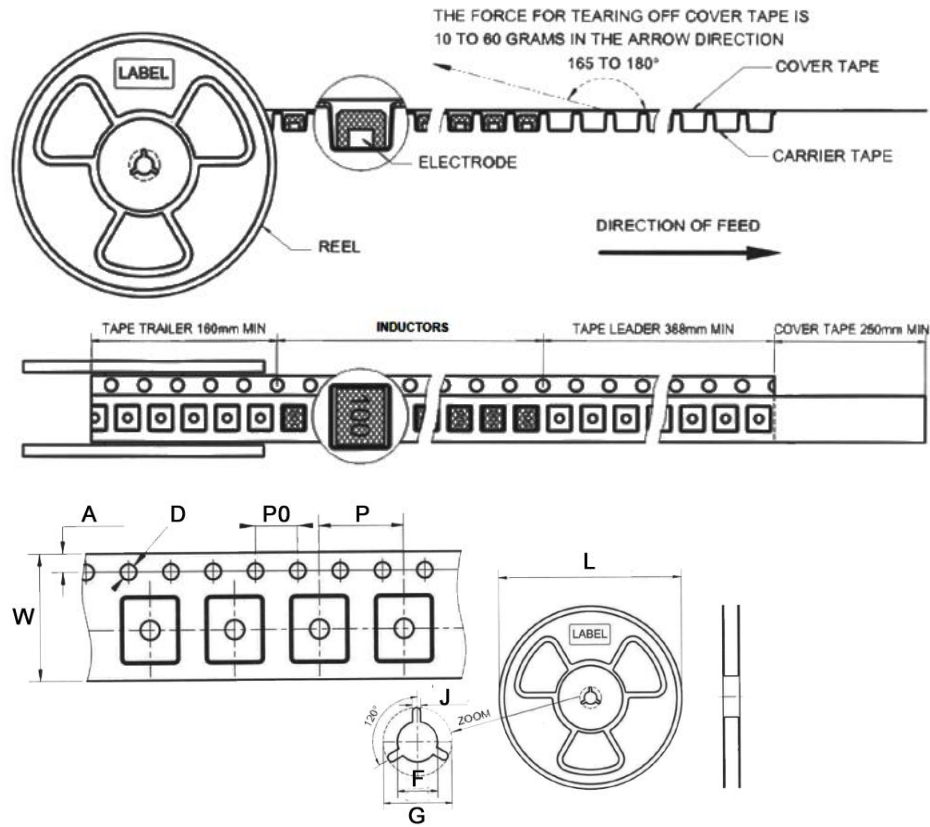
Electrical Specifications – LP5137(HP) (cont.)

Type/Code	Inductance (µh)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP5137MT101-HP	100	20%	100 KHz, 0.1V	0.22	2.5
LP5137MT121-HP	120	20%	100 KHz, 0.1V	0.32	2.2
LP5137MT151-HP	150	20%	100 KHz, 0.1V	0.34	2
LP5137MT181-HP	180	20%	100 KHz, 0.1V	0.42	1.8
LP5137MT221-HP	220	20%	100 KHz, 0.1V	0.44	1.6
LP5137MT271-HP	270	20%	100 KHz, 0.1V	0.6	1.3
LP5137MT331-HP	330	20%	100 KHz, 0.1V	0.7	1.2
LP5137MT391-HP	390	20%	100 KHz, 0.1V	0.85	1.1
LP5137MT471-HP	470	20%	100 KHz, 0.1V	0.95	1
LP5137MT561-HP	560	20%	100 KHz, 0.1V	1.1	1
LP5137MT681-HP	680	20%	100 KHz, 0.1V	1.2	1
LP5137MT821-HP	820	20%	100 KHz, 0.1V	1.5	0.82
LP5137MT102-HP	1000	20%	100 KHz, 0.1V	2	0.8

Electrical Specifications – LP7360

Type/Code	Inductance (µh)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max..
LP7360MT1R0	1	20%	100 KHz, 0.1V	0.009	20
LP7360MT2R2	2.2	20%	100 KHz, 0.1V	0.014	16
LP7360MT3R3	3.3	20%	100 KHz, 0.1V	0.018	14
LP7360MT4R7	4.7	20%	100 KHz, 0.1V	0.019	13
LP7360MT5R6	5.6	20%	100 KHz, 0.1V	0.02	12
LP7360MT6R8	6.8	20%	100 KHz, 0.1V	0.022	10.6
LP7360MT8R2	8.2	20%	100 KHz, 0.1V	0.024	10.3
LP7360MT100	10	20%	100 KHz, 0.1V	0.031	10
LP7360MT120	12	20%	100 KHz, 0.1V	0.034	8.2
LP7360MT150	15	20%	100 KHz, 0.1V	0.036	8
LP7360MT180	18	20%	100 KHz, 0.1V	0.045	7.2
LP7360MT220	22	20%	100 KHz, 0.1V	0.047	7
LP7360MT270	27	20%	100 KHz, 0.1V	0.056	5.8
LP7360MT330	33	20%	100 KHz, 0.1V	0.066	5.5
LP7360MT390	39	20%	100 KHz, 0.1V	0.08	4.6
LP7360MT470	47	20%	100 KHz, 0.1V	0.095	4.5
LP7360MT560	56	20%	100 KHz, 0.1V	0.128	3.7
LP7360MT680	68	20%	100 KHz, 0.1V	0.13	3.5
LP7360MT820	82	20%	100 KHz, 0.1V	0.18	3.1
LP7360MT101	100	20%	100 KHz, 0.1V	0.19	3
LP7360MT121	120	20%	100 KHz, 0.1V	0.24	2.8
LP7360MT151	150	20%	100 KHz, 0.1V	0.25	2.6
LP7360MT181	180	20%	100 KHz, 0.1V	0.36	2.5
LP7360MT221	220	20%	100 KHz, 0.1V	0.38	2.4
LP7360MT271	270	20%	100 KHz, 0.1V	0.52	2
LP7360MT331	330	20%	100 KHz, 0.1V	0.56	1.9
LP7360MT391	390	20%	100 KHz, 0.1V	0.72	1.5
LP7360MT471	470	20%	100 KHz, 0.1V	0.85	1.4
LP7360MT561	560	20%	100 KHz, 0.1V	1.08	1.3
LP7360MT681	680	20%	100 KHz, 0.1V	1.1	1.2
LP7360MT821	820	20%	100 KHz, 0.1V	1.6	1.03
LP7360MT102	1000	20%	100 KHz, 0.1V	1.8	1

Packaging Specifications



Type/Code	A	D	P0	P	W	F	G	J	L	Unit
LP2618	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
LP5137...-LP	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
LP5137	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
LP5137...-HP	0.069 ± 0.004	0.059 ± 0.004	0.157 ± 0.004	0.630	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	16.00	24.00	13.00 ± 1.00	23.00 ± 1.00	2.50 ± 0.50	330.00 ± 178.00	mm
LP7360	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

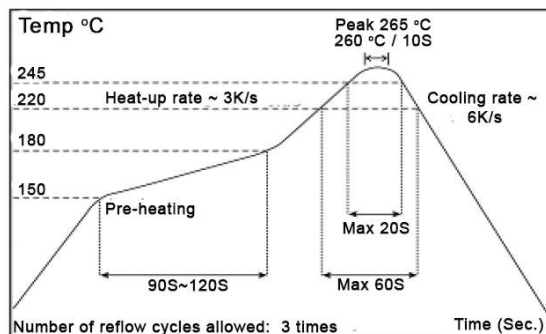
Environmental Specifications - General

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

Environmental Tests		
Test	Test Specification	Test Condition
High Temperature Storage Test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Time: 96 ± 2 hours Tested after 1 hour at room temperature
Low Temperature Storage Test		Temperature $-25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Time: 96 ± 2 hours Tested after 1 hour at room temperature
Humidity Test		Temperature $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 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 Tests		
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 $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 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 $130^{\circ}\text{C} \sim 150^{\circ}\text{C}$. immersing to $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 seconds.
Vibration Test	No case deformation or change in appearance $\Delta L/L \leq 10\%$	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)
LP	Unshielded 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

L	P	5	1	3	7	M	T	1	0	1	-	L	P
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Product Series		Size		Tolerance		Packaging				Inductance		Special		
Code	Description	Code	Dimensions	Code	Tol	Code	Description	Size	Quantity	Code	Description	Code	Description	
LP	SMD Unshielded Power Inductor	2618	6.6 x 4.45 x 2.92	K	± 10%	T	13" Tape and Reel	2618	2,000	1R1	1.1 µH	(blank)	Standard	
		5137(LP)	12.95 x 9.4 x 3	M	± 20%			5137(LP)	1,000	470	47 µH	-LP	Low Profile	
		5137	12.95 x 9.4 x 5.21					5137		225	101	100 µH	-HP	High Profile
		5137(HP)	12.95 x 9.4 x 11.43					5137(HP)		225				
		7360	18.54 x 15.24 x 7.11			7360	250							

Legacy Part Number:

P	D	1	8	1	3	M	T	1	0	1
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Product Series		Code	Dimensions (mm)	Tolerance		Packaging				Inductance			
Code	Description			Code	Tol	Code	Description	Size	Quantity	1R1	1.1µH		
PD	SMD Unshielded Power Inductor	1608	6.6 x 4.45 x 2.92	M	±20%	T	13" Tape and Reel	1608	2,000	470	47µH		
		1813	8.89 x 6.1 x 4.7					1813	1,000	101	100µH		
		3308	12.95 x 9.4 x 3					3308					
		3316	12.95 x 9.4 x 5.21					3316					
								3340	12.95 x 9.4 x 11.43	3340	225		
								5022	18.54 x 15.24 x 7.11	5022	250		