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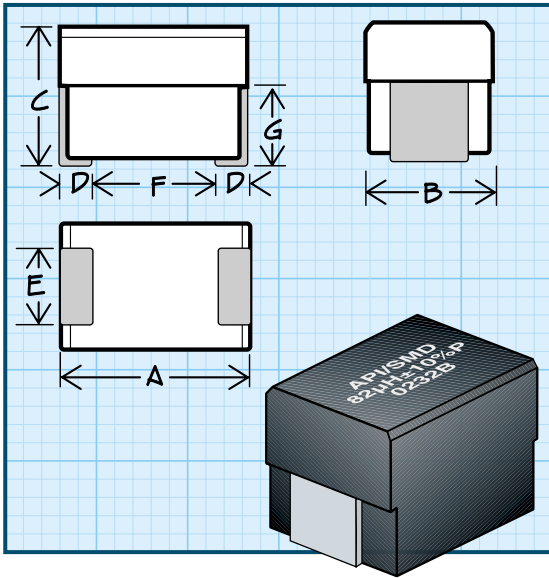
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Surface Mount Power Inductors

POWER INDUCTORS



Physical Parameters

	Inches	Millimeters
A	0.166 to 0.190	4.22 to 4.83
B	0.118 to 0.134	3.00 to 3.40
C	0.118 to 0.134	3.00 to 3.40
D	0.015 Min.	0.38 Min.
E	0.054 to 0.078	1.37 to 1.98
F	0.118 (Ref. only)	3.00 (Ref. only)
G	0.066 (Ref. only)	1.68 (Ref. only)

Dimensions "A" and "C" are over terminals

Operating Temperature Range -55°C to +125°C

Current Rating at 90°C Ambient 35°C Rise

Maximum Power Dissipation at 90°C 0.278 W

Inductance Measured at 1V with no DC current

Incremental Current The current at which the inductance will be decreased by a maximum of 5% from its initial zero DC value.

Packaging Tape & reel (12mm): 7" reel, 650 pieces max.; 13" reel, 2500 pieces max.

Made In the U.S.A. Patent Protected

DASH NUMBER*	INDUCTANCE (µH) ±10% @ 1 kHz	DC RESISTANCE MAXIMUM (OHMS)	CURRENT RATING MAX. (mA DC)	INCREMENTAL CURRENT (mA DC)
SERIES P1812				
-102K	1.0	0.113	1050	2400
-122K	1.2	0.199	1000	2158
-152K	1.5	0.222	950	1980
-182K	1.8	0.240	900	1828
-222K	2.2	0.268	850	1697
-272K	2.7	0.288	800	1513
-332K	3.3	0.323	750	1397
-392K	3.9	0.347	700	1250
-472K	4.7	0.401	650	1131
-562K	5.6	0.437	650	1060
-682K	6.8	0.472	600	990
-822K	8.2	0.548	600	871
-103K	10	0.608	550	772
-123K	12	0.670	550	752
-153K	15	0.780	450	693
-183K	18	0.875	400	614
-223K	22	1.200	370	515
-273K	27	1.404	330	465
-333K	33	1.578	300	425
-393K	39	1.848	280	376
-473K	47	2.064	260	366
-563K	56	2.268	240	336
-683K	68	3.408	220	297
-823K	82	3.648	200	267
-104K	100	4.320	180	238
-124K	120	6.000	160	208
-154K	150	6.432	140	183
-184K	180	8.400	120	158
-224K	220	9.680	120	143
-274K	270	12.720	100	129
-334K	330	15.240	90	118

OPTIONAL TOLERANCES: J=5% H=3% G=2%

*Complete part # must include series # PLUS the dash #

For further surface finish information, refer to TECHNICAL section of this catalog.

Technical Notes

Surface Mount Inductors

MARKING: Standard marking is either laser processing or imprinting. Each inductor will have manufacturer identifier, the inductance value (either by actual value or series dash number designation), and the date code of manufacture for traceability. See the catalog page for examples of the specific series printing. Optional marking is available on request. Micro-i's, Multilayer, Ferrite Beads, Variables, and Air-Coils are not marked due to construction or size limitations. Consult the Sales Department for your specific requirements.

PCB MOUNTING: All components are capable of being mounted by any standard means of assembly. Details can be obtained by consulting the API Delevan Engineering Department.

PACKAGING: Standard is bulk bagged or on "cut tape" for quantities under 500 pieces. Full reel quantities will be supplied on Tape & Reel per latest revision of EIA-RS-481. Series 3483 and S3483 conform to EIA #RC-1009B.

Tape & Reel Specifications for Catalog Parts

SERIES NUMBER	— MAXIMUM QUANTITY —		EMBOSSED CARRIER WIDTH
	PER 7" DIAMETER REEL	PER 13" DIAMETER REEL	
MICRO i® Devices			
100	Not Avail.	Not Avail.	---
103, 105, 108, 3090	2000	8000	8mm
3094, 4379	650	2500	12mm

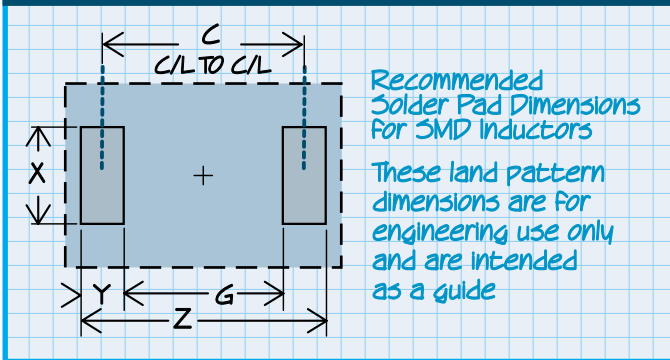
Tape & Reel Specifications for Catalog Parts

SERIES NUMBER	— MAXIMUM QUANTITY —		EMBOSSED CARRIER WIDTH
	PER 7" DIAMETER REEL	PER 13" DIAMETER REEL	
SURFACE MOUNT Devices			
0402	4000	Not Avail.	8mm
1008, HF1008, S1008, 4302	2000	7000	8mm
WW1008	2000	Not Avail.	8mm
1210, S1210, 4232	2000	7000	8mm
1330, MIL1330, P1330	500	2200	16mm
1331, MIL1331	500	2200	16mm
0603, C1608	4000	Not Avail.	8mm
0805	2000	Not Avail.	8mm
1812, S1812, MIL1812, P1812, MILS1812	650	2500	12mm
C2012	3000	Not Avail.	8mm
2510, MIL2510, 2512	750	2700	12mm
3223	Not Avail.	1000	24mm
3483, S3483	Not Avail.	1000	16mm
4221-1 & -3	500	2500	12mm
4221-2 & -4	500	2500	16mm
4426-1 to -5	650	2500	12mm
4426-6 to -10	400	1400	16mm
4448, CM6460, CM6560	Not Avail.	350	24mm
4494, 4501, FW1405	Not Avail.	600	24mm
4922, S4924, 5022, 5526	Not Avail.	800	24mm
5142	Not Avail.	500	24mm
8532	Not Avail.	480	44mm
CM6149	Not Avail.	800	16mm
CM6350, CM6594	Not Avail.	600	24mm
EMI0805, EMI1206, EMI1210	2000	5000	8mm
EMI1806-XXX	2000	5000	12mm
EMI1812-XXX	1000	2500	12mm
PD43	Not Avail.	1500	12mm
PD54, PD73	Not Avail.	1000	16mm
PD75	Not Avail.	500	16mm
PD104	Not Avail.	1000	24mm
PD105	Not Avail.	500	24mm
SDS680	Not Avail.	2000	16mm
SDS850	Not Avail.	1000	16mm
SDS130	Not Avail.	1000	24mm
SMB 2.5	Not Avail.	700	24mm
SPD62	Not Avail.	1500	16mm
SPD73, SPD74	Not Avail.	1000	16mm
SPD125, SPD127	Not Avail.	500	24mm

Suggested Land Patterns

Surface Mount Inductors

FIGURE 1



Suggested Surface Mount Land Patterns

(See Figure 1 at left)

The dimensions listed here are suggested land patterns. The values in this table will usually provide for a positive solder fillet. The user may increase or decrease the values based on process capability.

* For 4221, EMIxxx, Cxxxx, LLST: Actual dimensions with modified tolerances were used to achieve greater accuracy. On other series, max. specs. were used.

For Series Numbers not listed, see individual pages for these dimensions

SERIES	INCHES ± .005					MILLIMETERS ± 0.12				
	Z	G	Y	X	C	Z	G	Y	X	C
103, 105, 108, 3090	0.160	0.035	0.050	0.130	0.110	4.06	0.890	1.27	3.30	2.79
160, 4379, 3094	0.205	0.095	0.055	0.145	0.150	5.21	2.41	1.40	3.68	3.81
1008, S1008, 1008HF, 4302	0.165	0.055	0.055	0.080	0.110	4.19	1.40	1.40	2.03	2.79
1210, S1210, 4232	0.188	0.088	0.050	0.081	0.138	4.78	2.24	1.27	2.06	3.51
1330, P1330, 1331	0.375	0.205	0.085	0.080	0.290	9.53	5.21	2.16	2.03	7.37
1812, P1812, S1812	0.240	0.110	0.065	0.098	0.175	6.10	2.79	1.65	2.49	4.45
2510, 2512	0.305	0.095	0.105	0.065	0.200	7.75	2.41	2.67	1.65	5.08
3483, S3483	0.349	0.219	0.065	0.111	0.284	8.86	5.56	1.65	2.82	7.21
4922, 4924, 5022	0.570	0.370	0.100	0.095	0.470	14.48	9.40	2.54	2.41	11.94
8532	0.930	0.676	0.127	0.130	0.803	23.62	17.17	3.23	3.30	20.40
4221-1	0.230	0.086	0.080	0.062	0.150	5.84	2.18	2.03	1.57	3.81
4221-2	0.402	0.211	0.087	0.060	0.315	10.21	5.35	2.21	1.52	8.00
4221-3	0.245	0.085	0.085	0.062	0.160	6.22	2.16	2.16	1.57	4.06
4221-4	0.380	0.171	0.095	0.095	0.285	9.65	4.34	2.41	2.41	7.24
C1608	0.119	0.039	0.040	0.042	0.079	3.02	0.99	1.02	1.07	2.01
C2012	0.135	0.049	0.043	0.067	0.092	3.43	1.24	1.09	1.70	2.34
EMI0603	0.115	0.029	0.043	0.042	0.072	2.92	0.74	1.09	1.07	1.83
EMI0805	0.133	0.033	0.050	0.057	0.083	3.38	0.84	1.27	1.45	2.11
EMI1206	0.178	0.078	0.050	0.082	0.128	4.52	1.98	1.27	2.08	3.25
EMI1210	0.179	0.081	0.050	0.120	0.129	4.55	2.06	1.27	3.05	3.28
EMI1806	0.230	0.121	0.056	0.086	0.174	5.84	3.07	1.42	2.18	4.42
EMI1812	0.230	0.121	0.056	0.148	0.174	5.84	3.07	1.42	3.76	4.42
LLST	0.450	0.344	0.053	0.355	0.397	11.43	8.74	1.35	9.02	10.08
M0820	0.305	0.118	0.085	0.101	0.220	7.75	3.00	2.16	2.57	5.59
M1330, M1331	0.370	0.240	0.065	0.115	0.305	9.40	6.10	1.65	2.92	7.75
PD104/105	0.445	0.095	0.175	0.376	0.270	11.30	2.41	4.45	9.55	6.86
PD43	0.225	0.043	0.091	0.181	0.134	5.72	1.09	2.31	4.60	3.40
PD54	0.282	0.056	0.113	0.226	0.169	7.16	1.42	2.87	5.74	4.29
PD75	0.361	0.071	0.145	0.297	0.216	9.17	1.80	3.68	7.54	5.49
SPD125/127	0.535	0.285	0.125	0.220	0.410	13.59	7.24	3.18	5.59	10.41
SPD73/74	0.355	0.175	0.090	0.130	0.265	9.02	4.45	2.29	3.30	6.73
SPD62	0.290	0.150	0.070	0.080	0.220	7.36	3.81	1.78	2.03	5.59

Component Surface Finish (Continued)

API SERIES NUMBER	PRIMARY SURFACE FINISH	OPTIONAL SURFACE FINISH ON API SERIES NUMBER	ROHS SERIES NUMBER	ROHS SURFACE FINISH	OPTIONAL SURFACE FINISH
4554	Sn63/Pb37		4554R	Sn99.3/Cu0.7	
4564	Sn63/Pb37		4564R	Sn99.3/Cu0.7	
4590	Sn63/Pb37		4590R	Sn99.3/Cu0.7	
4669	Sn63/Pb37		4669R	Sn99.3/Cu0.7	
4922	Sn63/Pb37		4922R	Sn95.5/Ag3.8/Cu0.7	
5022	Sn63/Pb37		5022R	Sn95.5/Ag3.8/Cu0.7	
5142	Sn90/Pb10		5142R	100%Tin	
5526	Sn90/Pb10		5526R	100%Tin	
8454	Sn90/Pb10		8454R	100%Tin	
8532	Sn63/Pb37		8532R	Sn95.5/Ag3.8/Cu0.7	
9405	Sn61/Pb36/Ag3		9405R	Sn99.3/Cu0.7	
9406	Sn61/Pb36/Ag3		9406R	Sn99.3/Cu0.7	
9565	Sn90/Pb10		9565R	100%Tin	
0402	Sn90/Pb10		0402R	100%Tin	Consult Factory
0603	Sn90/Pb10		0603R	100%Tin	Consult Factory
0805	Sn90/Pb10		0805R	100%Tin	Consult Factory
0819	Sn63/Pb37		0819R	Sn99.3/Cu0.7	
0925	Sn63/Pb37		0925R	Sn99.3/Cu0.7	
HF1008	Sn63/Pb37		HF1008R	Sn95.5/Ag3.8/Cu0.7	
WW1008	Sn90/Pb10		WW1008R	100%Tin	Consult Factory
6012 - 6017	Sn90/Pb10		6012R -6017R	100%Tin	
6022 - 6027	Sn90/Pb10		6022R -6027R	100%Tin	
6051 - 6055	Sn90/Pb10		6051R -6055R	100%Tin	
6443 - 6448	Sn90/Pb10		6443R -6448R	100%Tin	
6494 - 6498	Sn90/Pb10		6494R -6498R	100%Tin	
6655 - 6658	Sn90/Pb10		6655R -6658R	100%Tin	
6665 -6668	Sn90/Pb10		6665R -6668R	100%Tin	
BF	No Termination Area				
C1608	100%Tin		C1608R	100%Tin	
C2012	100%Tin		C2012R	100%Tin	
CF	No Termination Area				
CM1011	Sn60/Pb40		CM1011R	Sn99.3/Cu0.7	
CM6149	100%Tin		CM6149R	Sn95.5/Ag3.8/Cu0.7	
CM6296	Sn63/Pb37		CM6296R	Sn95.5/Ag3.8/Cu0.7	
CM6350	100%Tin		CM6350R	Sn95.5/Ag3.8/Cu0.7	
CM6460	100%Tin		CM6460R	Sn95.5/Ag3.8/Cu0.7	
CM6560	100%Tin		CM6560R	Sn95.5/Ag3.8/Cu0.7	
CM6594	Sn63/Pb37		CM6594R	Sn95.5/Ag3.8/Cu0.7	
CM7560	Sn60/Pb40		CM7560R	100%Tin	
CM9900	Sn60/Pb40		CM9900R	100%Tin	
CMT4545	100%Tin		CMT4545R	100%Tin	
CSP	No Termination Area				
DC630	Sn63/Pb37		DC630R	Sn99.3/Cu0.7	
DC780	Sn63/Pb37		DC780R	Sn99.3/Cu0.7	
EMI0603	Sn90/Pb10		EMI0603R	100%Tin	
EMI0805	Sn90/Pb10		EMI0805R	100%Tin	
EMI1206	Sn90/Pb10		EMI1206R	100%Tin	
EMI1210	Sn90/Pb10		EMI1210R	100%Tin	
EMI1806	Sn90/Pb10		EMI1806R	100%Tin	
EMI1812	Sn90/Pb10		EMI1812R	100%Tin	
ER1025	Sn63/Pb37				Consult Factory
ER1537	Sn63/Pb37				Consult Factory
ER1641	Sn63/Pb37				Consult Factory
ER1840	Sn63/Pb37				Consult Factory
FFAM	No Termination Area				
FFAT	No Termination Area				
FTA	No Termination Area				
FW1405	Sn90/Pb10		FW1405R		Consult Factory

CONTINUED ON NEXT PAGE

Component Surface Finish (Continued)

API SERIES NUMBER	PRIMARY SURFACE FINISH	OPTIONAL SURFACE FINISH ON API SERIES NUMBER	ROHS SERIES NUMBER	ROHS SURFACE FINISH	OPTIONAL SURFACE FINISH
HC	Sn63/Pb37		HCR	Sn99.3/Cu0.7	
HCT	Sn63/Pb37		HCTR	Sn95.5/Ag3.8/Cu0.7	
LLST	Sn90/Pb10		LLSTR	100%Tin	
MIL1330	Sn63/Pb37				Consult Factory
MIL1331	Sn63/Pb37				Consult Factory
P1330	Sn63/Pb37		P1330R	Sn95.5/Ag3.8/Cu0.7	
P1812	Sn63/Pb37		P1812R	Sn95.5/Ag3.8/Cu0.7	
PA	No Termination Area				
PD104	Sn95/Pb5	Gold Plate	PD104R	100%Tin	
PD105	Sn95/Pb5	Gold Plate	PD105R	100%Tin	
PD43	Sn95/Pb5	Gold Plate	PD43R	100%Tin	
PD54	Sn95/Pb5	Gold Plate	PD54R	100%Tin	
PD73	Sn95/Pb5	Gold Plate	PD73R	100%Tin	
PD75	Sn95/Pb5	Gold Plate	PD74R	100%Tin	
PT	Sn63/Pb37		PTR	Sn99.3/Cu0.7	
PTHF	Sn63/Pb37		PTHFR	Sn99.3/Cu0.7	
PTHF-SM	Sn63/Pb37		PTHFR-SM	Sn95.5/Ag3.8/Cu0.7	Consult Factory
PTHF-VM	Sn63/Pb37		PTHFR-VM	Sn99.3/Cu0.7	
PTKM	Sn63/Pb37		PTKMR	Sn99.3/Cu0.7	
PTKM-SM	Sn63/Pb37		PTKMR-SM	Sn95.5/Ag3.8/Cu0.7	Consult Factory
PTKM-VM	Sn63/Pb37		PTKMR-VM	Sn99.3/Cu0.7	
RPC/RPU	No Termination Area				
S1008	Sn63/Pb37		S1008R	Sn95.5/Ag3.8/Cu0.7	
S1210	Sn63/Pb37		S1210R	Sn95.5/Ag3.8/Cu0.7	
S1812	Sn63/Pb37		S1812R	Sn95.5/Ag3.8/Cu0.7	
			S3483R	Sn96/Cu4.0	
S4924	Sn63/Pb37		S4924R	Sn95.5/Ag3.8/Cu0.7	
SDS130	Sn90/Pb10		SDS130R		Consult Factory
SDS680	Sn90/Pb10		SDS680R		Consult Factory
SDS850	Sn90/Pb10		SDS850R		Consult Factory
SMB2.5	Sn90/Pb10		SMB2.5R	100%Tin	
SPD125	Sn95/Pb5	Gold Plate	SPD125R	100%Tin	
SPD127	Sn95/Pb5	Gold Plate	SPD127R	100%Tin	
SPD62	Sn95/Pb5	Gold Plate	SPD62R	100%Tin	
SPD73	Sn95/Pb5	Gold Plate	SPD73R	100%Tin	
SPD74	Sn95/Pb5	Gold Plate	SPD74R	100%Tin	
SPST	Sn60/Pb40		SPSTR	Sn99.3/Cu0.7	



Prototyping Kits

OTHER KITS AVAILABLE

Consult factory

Reference series pages
for specifications

Series	Inductance	Tolerance	Construction	# of Values	Quantity each Value
Unshielded Chip Inductor Kits					
Series 0603	1.6 nH to 390 nH	5%	Open	42	10
Series 0603	10.0 nH to 390 nH	2%	Open	28	10
Series 0805	2.8 nH to 2700 nH	5%	Open	45	10
Series 0805	10.0 nH to 2700 nH	2%	Open	38	10
Series 1008	.0018 uH to 47.0 uH	20% to 5%	Molded	54	5
Series 1008	.0018 uH to 47.0 uH	2%	Molded	54	5
Series 1008HF	4.7 nH to 4700 nH	20% to 10%	Molded	38	5
Series 1008HF	4.7 nH to 4700 nH	2%	Molded	38	5
Series 1210	.0018 uH to 100 uH	20% to 5%	Molded	58	5
Series 1210	.0018 uH to 100 uH	2%	Molded	58	5
Series 1812	.010 uH to 1000 uH	20% to 5%	Molded	61	5
Series 1812	.010 uH to 1000 uH	2%	Molded	61	5
Shielded Chip Inductor Kits					
Series S1008	0.10 to 47.0uH	10%	Molded	36	5
Series S1008	0.10 to 47.0uH	2%	Molded	36	5
Series S1210	0.10 to 100.0uH	10%	Molded	37	5
Series S1210	0.10 to 100.0uH	2%	Molded	37	5
Series S1812	0.10 to 1000.0uH	20% to 10%	Molded	49	5
Series S1812	0.10 to 1000.0uH	2%	Molded	49	5
Temperature Stable Chip Inductor Kits					
Series 4302	0.12 to 27 uH	10%	Molded	29	5
Series 4302	0.12 to 27 uH	2%	Molded	29	5
Series 4232	0.10 to 47 uH	10%	Molded	33	5
Series 4232	0.10 to 47 uH	2%	Molded	33	5
Power Chip Inductor Kits					
Series P1812	1.0 to 330uH	10% to 2%	Molded	31	5
Series P1330	1.0 to 1000uH	10% to 2%	Molded	37	5
Air Core Inductor Kits					
Series 4426	2.5 to 43 nH	5%	Open	8	10
Series 4426	2.5 to 43 nH	2%	Open	8	10
Series 5526	90 nH to 538 nH	5%	Open	8	10
Series 5526	90 nH to 538 nH	2%	Open	8	10
	Operating Range		Peak		
EMI / RFI Kits					
Series BF	30 to 300 MHz	—	100 to 400 MHz	12	1
RPC / RPU	30 to 300 MHz	—	100 to 500 MHz	8	1
Series 8454	10 to 100 MHz	—	15 to 100 MHz	5	4
9565	10 to 200 MHz	—	30 to 100 MHz	5	4
CSP	50 to 500 MHz	—	300 to 400 MHz	16	2