Series Number
DS6630
DS1137
DS1145
DS1351
DS1976

CoEv inc.
tyco Electronics

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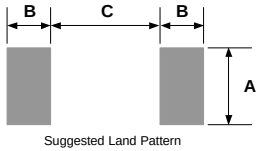
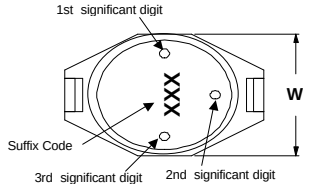
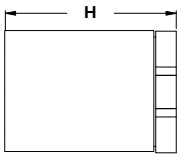
BABT certified ISO 9001

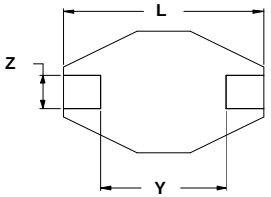
Shielded Drum Core Inductors, Tape and Reel Easy Part Numbers: (Series Number) - (Suffix Code)(Tolerance), example DS1137-150M
Bulk Packaging add (-B) to end of Part Numbering Sequence. example DS1137-150M-B



Suggested Land Pattern







Parts will be marked with Significant Digit Dots OR Suffix code

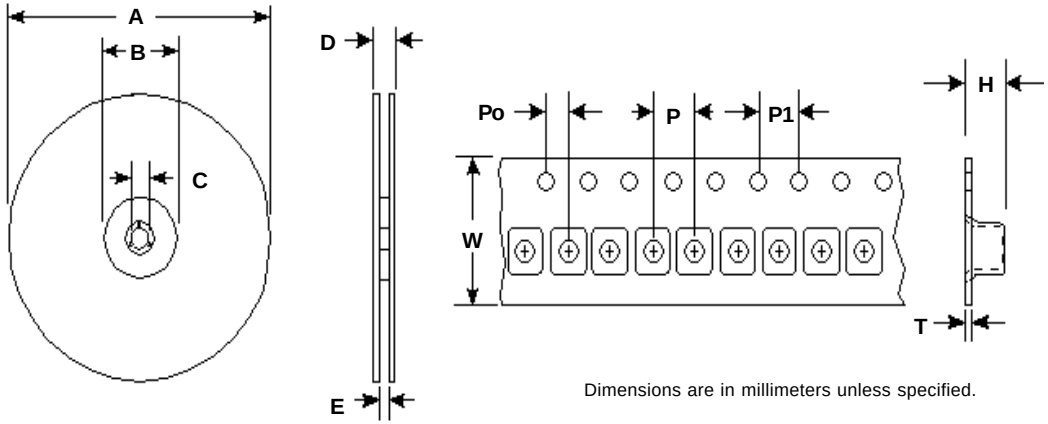
Series Number	Maximum Dimensions			Reference Dimensions				
	L	W	H	Y	Z	A	B	C
DS6630	0.260" [6.60]	0.177" [4.50]	0.115" [2.92]	0.170" [4.32]	0.050" [1.27]	0.140" [3.56]	0.055" [1.40]	0.160" [4.06]
DS1137	0.421" [10.70]	0.323" [8.20]	0.146" [3.70]	0.236" [6.00]	0.079" [2.00]	0.087" [2.20]	0.094" [2.40]	0.224" [5.70]
DS1145	0.421" [10.70]	0.323" [8.20]	0.177" [4.50]	0.236" [6.00]	0.079" [2.00]	0.087" [2.20]	0.094" [2.40]	0.224" [5.70]
DS1351	0.510" [12.95]	0.398" [10.10]	0.201" [5.10]	0.300" [7.62]	0.100" [2.54]	0.110" [2.80]	0.118" [3.00]	0.290" [7.37]
DS1976	0.730" [18.54]	0.600" [15.25]	0.300" [7.62]	0.500" [12.70]	0.100" [2.54]	0.110" [2.79]	0.115" [2.92]	0.490" [12.45]

Features:
- High energy storage and low resistance.
- Ideal for DC-DC buck or boost conversion.
- Reliable surface mounting.
- Drop-in replacements for industry prevalent competitor series.
- Robust temperature deflection to prevent damage during solder reflow.
- Tape and Reel mechanical specifications available upon request.
- Operating temperature range -40°C to +85°C.

		DS6630			DS1137				DS1145				DS1351				DS1976			
L[7] µH	Suffix Codes	DCR[1] W	I_{MAX}[2-4] A	Tolerance Suffix[6]	DCR[1] W	I_{SAT}[3] A	I_{RMS}[5] A	Tolerance Suffix[6]	DCR[1] W	I_{SAT}[3] A	I_{RMS}[5] A	Tolerance Suffix[6]	DCR[1] W	I_{SAT}[3] A	I_{RMS}[5] A	Tolerance Suffix[6]	DCR[1] W	I_{SAT}[3] A	I_{RMS}[5] A	Tolerance Suffix[6]
1.0	1R0	0.040	3.0	M									0.021	5.80	5.00	M				
1.5	1R5	0.045	2.8	M									0.022	5.20	4.50	M				
2.2	2R2	0.050	1.8	M					0.040	2.50	2.50	M	0.032	5.00	3.80	M				
3.3	3R3	0.055	1.6	M									0.039	3.90	3.30	M				
3.9	3R9								0.055	2.10	2.10	M								
4.7	4R7	0.060	1.4	M									0.054	2.80	2.70	M				
5.0	5R0				0.080	1.70	1.70	M												
5.6	5R6								0.065	1.95	1.95	M								
6.8	6R8	0.065	1.2	M									0.075	2.80	2.20	M				
7.5	7R5				0.100	1.40	1.40	M												
8.2	8R2								0.080	1.75	1.75	M								
10	100	0.075	1.0	M	0.165	1.20	1.20	M	0.100	1.50	1.50	M	0.101	2.40	2.00	M	0.040	7.00	3.60	M
12	120				0.172	1.10	1.10	M	0.120	1.40	1.40	M								
15	150	0.090	0.80	M	0.181	1.00	1.00	M	0.140	1.30	1.30	M	0.150	2.00	1.50	M	0.048	5.60	3.20	M
18	180				0.190	0.90	0.90	M	0.160	1.20	1.20	M								
22	220	0.110	0.70	M	0.250	0.80	0.80	M	0.180	1.10	1.10	M	0.207	1.50	1.30	M	0.059	5.00	2.80	M
27	270				0.270	0.70	0.70	M	0.200	1.00	1.00	M								
33	330	0.190	0.60	M	0.300	0.65	0.65	M	0.240	0.92	0.92	M	0.334	1.40	1.10	M	0.075	4.50	2.60	M
39	390				0.380	0.60	0.60	M	0.350	0.84	0.84	M								
47	470	0.230	0.50	M	0.580	0.55	0.55	M	0.425	0.75	0.75	M	0.472	1.00	0.80	M	0.097	4.00	2.40	M
56	560				0.620	0.50	0.50	M	0.530	0.68	0.68	M								
68	680	0.290	0.40	M	0.920	0.45	0.45	M	0.668	0.60	0.60	M					0.138	3.00	2.00	M
82	820				0.980	0.40	0.40	M	0.730	0.54	0.54	M								
100	101	0.480	0.3	M					1.050	0.50	0.50	M					0.207	2.40	1.70	M
120	121								1.120	0.45	0.45	M								
150	151	0.590	0.26	M													0.293	2.10	1.30	M
180	181																			
220	221	0.770	0.22	M													0.470	1.90	1.10	M
270	271																			
330	331	1.40	0.2	M													0.780	1.10	0.86	M
390	391																			
470	471	1.80	0.19	M													1.080	1.10	0.73	M
680	681	2.20	0.18	M													1.400	0.96	0.64	M
1000	102	3.40	0.15	M													2.010	0.80	0.53	M
1500	152	4.20	0.12	M																
2200	222	8.50	0.10	M																
3300	332	11.00	0.08	M																
4700	472	25.20	0.06	M																
6800	682	30.80	0.04	M																
10000	103	39.60	0.02	M																

1) DCRs (DC resistances) are maximums @20°C.
2) Total current rating (IDC + IAC)
3) DC (Direct Current) current applied to produce a typical 10% drop in nominal inductance.
4) DC (Direct Current) current applied to produce a typical 30°C temperature rise.
5) DC (Direct Current) current applied to produce a typical 40°C temperature rise.
6) Suffix of M = ±20%
7) Inductance measured at 100kHz and 100mV

Specifications subject to change without notice



Dimensions are in millimeters unless specified.

Series Number	Tape and Reel dimensions (mm)											Reel Quantity	Packaging Specification
	A MAX	B MIN	C ± 0.5	D MAX	E MAX	W ± 0.3	P ± 0.1	Po ± 0.1	P1 ± 0.1	H ± 0.05	T ± 0.05		
DS6630	360.0	100.0	13.0	22.4	19.4	16.0	8.0	2.0	4.0	3.5	0.35	**2500**	**90-0057**
DS1137	360.0	100.0	13.0	30.4	27.4	24.0	12.0	2.0	4.0	3.8	0.35	**1000**	**90-0062**
DS1145	360.0	100.0	13.0	30.4	27.4	24.0	12.0	2.0	4.0	4.6	0.35	**1000**	**90-0063**
DS1351	360.0	100.0	13.0	30.4	27.4	24.0	16.0	2.0	4.0	5.7	0.35	**750**	**90-0055**
DS1976	360.0	100.0	13.0	50.4	47.4	44.0	24.0	2.0	4.0	6.9	0.35	**250**	**90-0065**

PACKAGING NOTE: Only pressure sensitive cover tape is to be used.

Item	Specification	Test Method/Condition
Environmental		
Static Humidity	After exposure part remains within specified electrical parameters for L, Q and DCR.	Expose parts to an environment of +50°C with 90 to 95% R.H. for 100 hours. After exposure, allow parts to dry for 2 hours before measurements are taken.
Storage Life	After exposure part remains within specified electrical parameters for L, Q and DCR.	Subject parts to an environment of +50°C 90 to 100% R.H. for 46 to 50 hours. After exposure, allow parts to dry for 2 hours before measurements are taken.
Moisture Resistance	After exposure, part shall not have a shorted or open winding.	Per MIL-STD 202 Method 106, ten 24 hour cycles at +25°C to +65°C at 80 to 95% R.H. During any of the first 9 cycles, inductors are revolved from the chamber and exposed to -10°C for 3 hours. Allow parts to dry for 2 hours before measurements are taken.
Temperature Cycle	After exposure part remains within specified electrical parameters for L, Q and DCR.	10 cycles (Air to Air) 1 cycle shall consist of: 30 minutes exposure to +85°C 30 minutes exposure to -40°C Allow 20 minutes transition between extremes.
Temperature Shock	After exposure part remains within specified electrical parameters for L, Q and DCR.	10 cycles (Air to Air) 1 cycle shall consist of: 30 minutes exposure to -45°C 30 minutes exposure to +125°C 15 seconds maximum transition between temperatures
General		
Storage Temperature Range	-40°C to +85°C	
Operating Temperature Range	-40°C to +85°C	
Flammability	IEC 695-2-2	Withstands needle-flame test
Other		
Vibration	After exposure part remains within specified electrical parameters for L, Q and DCR.	Inductors shall be randomly vibrated per NAVMAT P9492 profile. Samples shall be subjected to 0.04G/Hz for a minimum of 15 minutes per axis, for each of the three axes.
Mechanical Shock	After exposure part remains within specified electrical parameters for L, Q and DCR.	Test per MIL-STD 202 method 213 test condition A, test mounted samples 3 axes, 6 times, totaling 18 shocks. (50Gs, 11ms, half-sine).
Solderability	Wetting shall cover 90% minimum of each termination	Dip pads in RMA flux, 63/37 solder (Sn/Pb) at 232°C for 5 seconds ±2 seconds.
Component Adhesion (Push Test)	4 pounds	Apply and measure force with a digital force gauge set.
Resistance to Solvent	No sign of degradation in appearance or marking detail.	Withstands 6 minutes of alcohol. Withstands 3 minutes forced spray Freon TMS
Load Life	After exposure, part shall not have a shorted or open winding.	Parts to be stored at 110°C for 1000 hours with rated current applied. Parts to be tested at: start, 500 and 1000 hours. Allow 2 hours at room temperature before testing.