

Series Number

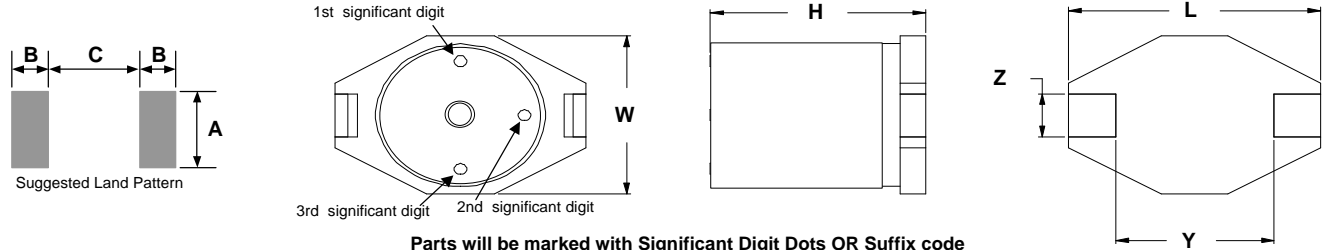
DT0703
DT1351



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Shielded, High Current, Inductors Smart Part Numbers: (Series Number) - (Suffix Code)(Tolerance), example DT6630-100M
Bulk Packaging add (-B) to end of Part Numbering Sequence. example DT6630-100M-B



Series Number	Maximum Dimensions			Reference Dimensions				
	L	W	H	Y	Z	A	B	C
DT0703	0.260"	0.177"	0.115"	0.190"	0.050"	0.111"	0.041"	0.179"
	[6.60]	[4.50]	[2.92]	[4.83]	[1.27]	[2.82]	[1.03]	[4.55]
DT1351	0.510"	0.398"	0.201"	0.300"	0.100"	0.110"	0.115"	0.290"
	[12.95]	[10.10]	[5.10]	[7.62]	[2.54]	[2.79]	[2.92]	[7.37]

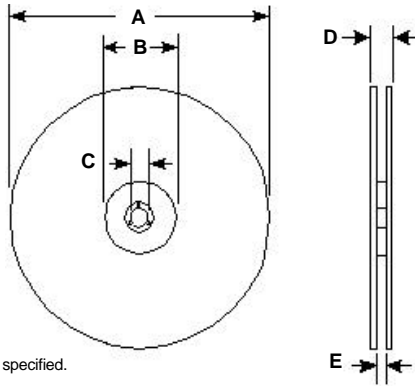
Features:

- High energy storage and low resistance.
- Ideal for DC-DC buck or boost conversion.
- Reliable surface mounting.
- Low temperature rise over inductance range.

L ¹	Suffix Codes	DT0703				DT1351				Significant Digit Dot Code		
		DCR ²	I _{AVE} ³	Storage	Tolerance	DCR ²	I _{AVE} ³	Storage	Tolerance	1st 2nd 3rd		
		W	A	mJ	Suffix ⁴	W	A	mJ	Suffix ⁴	1st	2nd	3rd
1.0	1R0	0.045	2.00	1.80	M	0.025	5.00	9.00	M	BRN	BLK	RED
1.5	1R5	0.050	1.90	1.80	M	0.030	5.00	12.00	M	BRN	GRN	RED
2.2	2R2	0.060	1.50	1.80	M	0.035	5.00	15.00	M	RED	RED	RED
3.3	3R3	0.070	1.20	1.40	M	0.040	5.00	16.00	M	ORG	ORG	RED
4.7	4R7	0.080	1.20	1.60	M	0.045	3.00	10.00	M	YEL	VIO	RED
6.8	6R8	0.085	1.00	1.90	M	0.050	2.50	14.00	M	BLU	GRY	RED
10	100	0.095	0.70	1.20	M	0.055	2.00	11.00	M	BRN	BLK	ORG
15	150	0.135	0.60	1.10	M	0.060	1.80	12.00	M	BRN	GRN	ORG
22	220	0.160	0.50	1.20	M	0.084	1.50	11.00	M	RED	RED	ORG
33	330	0.275	0.45	1.50	M	0.090	1.30	13.00	M	ORG	ORG	ORG
47	470	0.420	0.34	1.30	M	0.110	1.00	13.00	M	YEL	VIO	ORG
68	680	0.575	0.29	1.40	M	0.150	0.90	17.00	M	BLU	GRY	ORG
100	101	1.100	0.24	1.50	M	0.290	0.80	15.00	M	BRN	BLK	YEL
150	151	1.400	0.20	1.40	M	0.360	0.60	15.00	M	BRN	GRN	YEL
220	221	2.250	0.17	1.60	M	0.390	0.50	10.00	M	RED	RED	YEL
330	331	3.500	0.16	1.40	M	0.730	0.40	13.00	M	ORG	ORG	YEL
470	471	4.100	0.14	1.50	M	0.880	0.35	13.00	M	YEL	VIO	YEL
680	681	7.200	0.12	1.40	M	1.150	0.30	13.00	M	BLU	GRY	YEL
1000	102	8.500	0.08	1.40	M	1.450	0.25	13.00	M	BRN	BLK	GRN

- 1) Tested at 100kHz, 100mVrms @20°C.
- 2) DCRs (DC resistances) are maximums @20°C.
- 3) Average maximum allowable current. Spikes as high as 2X the current rating.
- 4) Tolerance of M = ±20%.

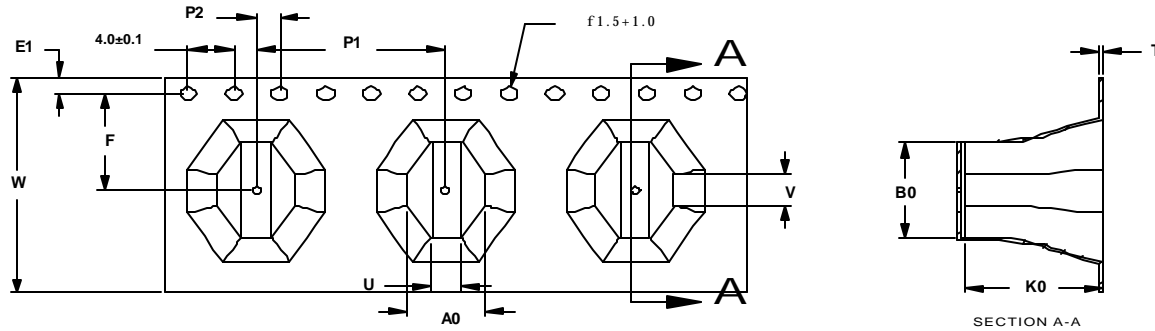
Specifications subject to change without notice



Dimensions are in millimeters unless specified.

Series Number	Reel dimensions (mm)																Reel Quantity	Packaging Specification	
	A MAX	B MIN	C ± 0.5	D MAX	E MAX	A0 ± 0.1	B0 ± 0.1	K0 ± 0.05	P1 ± 0.1	P2 ± 0.1	U ± 0.1	V ± 0.1	E1 ± 0.1	F ± 0.1	W ± 0.3	T ± 0.05			
DT0703	360	100	13	22.4	19.4	4.55	6.70	3.45	8.00	2.00	1.45	2.70	1.75	5.50	16.00	0.35	2500	90-0057	
DT1351	360	100	13	30.4	27.4	9.70	13.40	5.50	16.00	2.00	3.60	3.60	1.75	11.50	24.00	0.35	700	90-0059	

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



SECTION A-A

Customer Packaging Specifications
For Print Distribution to Customers

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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.

For Print Distribution to Customers

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