

DP03 Series Unshielded Power Inductors

Features

- Unshielded, Rod core
- High current output
- Having excellent high-frequency characteristics

Applications

- Power seat motor, Electric power steering
- Electronically controlled throttle, variable valve controller ABS
- Noise filtering for DC motor, etc.



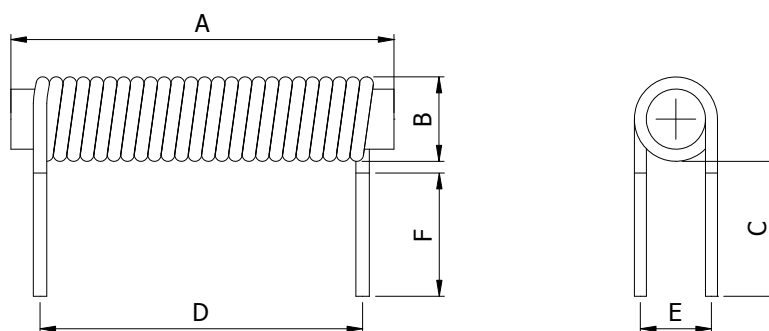
Environmental Data

- Storage temperature range: -55°C to + 150°C
- Operating temperature range: -55°C to + 150°C
(including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Tray and carton box packaging

Mechanical Dimension (Unit: mm/inches)

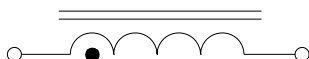


Type	A Max.	B Max.	C Nom.	D Nom.	E Nom.	F Nom.
DP03-035130	13.5	3.8	20.0	11.3	2.8	16.0
	0.532	0.150	0.787	0.445	0.110	0.63
DP03-035170	17.5	3.8	20.0	14.8	2.8	16.0
	0.690	0.150	0.787	0.583	0.110	0.63
DP03-035190	19.5	3.8	20.0	17.6	2.8	16.0
	0.770	0.150	0.787	0.693	0.110	0.630
DP03-040130	13.5	4.3	20.0	9.2	3.3	16.0
	0.532	0.170	0.787	0.362	0.13	0.63
DP03-040160	16.5	4.3	20.0	13.4	3.3	16.0
	0.650	0.170	0.787	0.528	0.13	0.63
DP03-040190	19.5	4.3	20.0	15.5	3.3	16.0
	0.770	0.170	0.787	0.610	0.13	0.630
DP03-045130	13.5	5.0	19.0	9.2	3.8	15.0
	0.532	0.197	0.748	0.362	0.15	0.591
DP03-045160	16.5	5.0	19.0	13.4	3.8	15.0
	0.650	0.197	0.748	0.528	0.15	0.591
DP03-045180	18.5	5.0	19.0	15.5	3.8	15.0
	0.729	0.197	0.748	0.610	0.15	0.591

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DP03-050130	13.5	5.5	19.0	8.5	4.3	15.0
	0.532	0.217	0.748	0.335	0.170	0.591
DP03-050160	16.5	5.5	19.0	12.0	4.3	15.0
	0.650	0.217	0.748	0.473	0.170	0.591
DP03-050190	19.5	5.5	19.0	14.1	4.3	15.0
	0.770	0.217	0.748	0.555	0.170	0.591
DP03-060150	15.5	6.5	18.0	13.0	5.1	14.0
	0.610	0.256	0.709	0.512	0.200	0.551
DP03-060180	18.5	6.5	18.0	15.7	5.1	14.0
	0.728	0.256	0.709	0.618	0.200	0.551
DP03-060200	20.5	6.5	18.0	18.5	5.1	14.0
	0.807	0.256	0.709	0.728	0.200	0.551
DP03-077200	20.5	8.2	16.0	19.0	6.4	12.0
	0.807	0.323	0.630	0.748	0.252	0.473
DP03-085250	25.5	9.0	16.0	22.8	7.3	15.0
	1.003	0.354	0.630	0.898	0.288	0.591
DP03-097250	25.5	10.2	8.0	13.1	8.0	4.0
	1.003	0.402	0.315	0.516	0.315	0.158
DP03-125300	30.5	13.0	10.8	25.9	10.4	4.0
	12.007	0.512	0.425	1.020	0.410	0.158

Electrical Schematic



Part Number Description

DP03 - 035130 2R3 M

① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

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Electrical Characteristic

Part Number	Inductance	DC Resistance		Rated current
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Max.
DP03-0351302R3M	2.3	7.5	9.0	5.0
DP03-0351704R4M	4.4	9.8	11.8	3.5
DP03-0351905R9M	5.9	11.6	13.9	2.5
DP03-0401302R2M	2.2	7.8	9.4	6.5
DP03-0401604R1M	4.1	10.5	12.6	4.7
DP03-0401906R0M	6.0	12.0	14.4	3.7
DP03-0451302R3M	2.3	8.2	9.9	9.0
DP03-0451604R6M	4.6	11.9	14.3	6.5
DP03-0451806R2M	6.2	13.8	16.6	5.0
DP03-0501302R3M	2.3	8.7	10.5	10.0
DP03-0501604R5M	4.5	12.2	14.7	8.0
DP03-0501906R7M	6.7	14.4	17.3	6.5
DP03-0601502R9M	2.9	7.2	9.4	13.0
DP03-0601804R4M	4.4	8.5	10.2	10.0
DP03-0602005R9M	5.9	10.0	12.0	8.2
DP03-0772003R7M	3.7	4.9	5.9	12.0
DP03-0852508R0M	8.0	8.2	9.9	11.0
DP03-0972501R9M	1.9	1.5	1.8	24.0
DP03-1253004R7M	4.7	2.5	3.0	25.0

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Rated current:It is either the inductance is 10% lower is than its initial value in DC saturation characteristics or temperature rise becomes $\Delta T=40^{\circ}\text{C}$ whichever lower.