

# DP01 Series Unshielded Power Inductors

## Features

- Unshielded, leaded drum core
- High current output, Low DCR
- Wide range of inductance

## Applications

- High power supplies
- Power amplifiers
- SCR and TRIAC controls
- Speaker crossover networks and filters

## Environmental Data

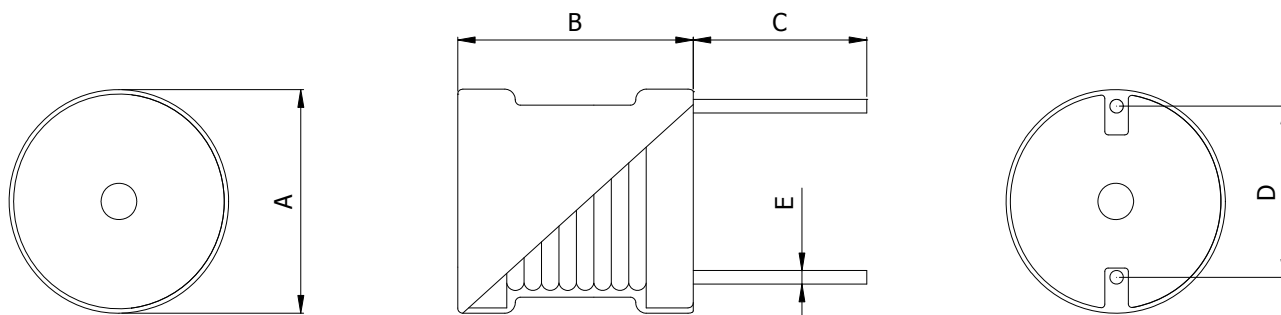
- Storage temperature range: -55°C to + 130°C
- Operating temperature range: -55°C to + 130°C  
(including coil's self-temperature rise)
- Moisture sensitivity level: 1
- RoHS&HF compliance



## Packaging

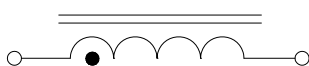
- Tray and carton box packaging

## Mechanical Dimension (Unit: mm/inches)



Type	A Max.	B Max.	C	D Nom.	E Nom.
DP01-1721	16.8 0.662	21.3 0.839	5.0±1.0 0.197±0.04	See below table	
DP01-2122	21.0 0.827	21.5 0.847	5.0±1.0 0.197±0.04		
DP01-2627	26.0 1.024	27.0 1.063	5.0±1.0 0.197±0.04	See below table	
DP01-4128	40.5 1.60	28.0 1.103	5.0±1.0 0.197±0.04		
DP01-4138	40.5 1.60	38.0 1.50	5.0±1.0 0.197±0.04	See below table	
DP01-5038	50.0 1.97	38.0 1.50	5.0±1.0 0.197±0.04		

## Electrical Schematic



## Part Number Description

DP01 - 1721 100 M  
① ② ③ ④

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

# DP01 Series Unshielded Power Inductors

## Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-1721100M	10	6.8	8.2	28.0	9.0	13.97/0.55	1.40/0.055
DP01-1721150M	15	10.2	12.2	24.0	7.2	12.70/0.50	1.20/0.047
DP01-1721220M	22	17.4	21.0	20.0	5.5	12.70/0.50	1.00/0.040
DP01-1721330M	33	26.1	31.3	16.0	4.0	10.43/0.41	0.85/0.034
DP01-1721470M	47	45.8	55.0	13.5	2.8	11.91/0.47	0.70/0.028
DP01-1721680M	68	63.0	75.6	11.0	2.8	12.70/0.50	0.65/0.026
DP01-1721101K	100	77.4	93.0	9.0	2.8	12.70/0.50	0.65/0.026
DP01-1721151K	150	112.4	135.0	7.5	1.6	12.20/0.48	0.60/0.024
DP01-1721221K	220	151.7	182.0	4.8	1.6	12.20/0.48	0.60/0.024
DP01-1721331K	330	246.2	296.0	4.5	1.3	12.20/0.48	0.50/0.020
DP01-1721471K	470	361.9	435.0	4.2	0.8	11.43/0.45	0.45/0.018
DP01-1721561K	560	392.1	471.0	3.7	0.8	11.43/0.45	0.45/0.018

## Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-2122100M	10	6.1	7.0	33.0	11.4	15.75/0.620	1.50/0.059
DP01-2122150M	15	7.8	9.0	29.0	9.0	15.88/0.625	1.40/0.055
DP01-2122220M	22	12.4	14.5	24.0	7.2	16.00/0.630	1.20/0.047
DP01-2122330M	33	18.8	22.0	19.0	5.5	13.87/0.546	1.10/0.044
DP01-2122390M	39	20.7	24.0	18.0	5.5	15.10/0.595	1.10/0.044
DP01-2122470M	47	27.3	31.5	16.5	5.5	15.88/0.625	1.00/0.040
DP01-2122560M	56	29.3	34.0	14.5	5.5	15.88/0.625	1.00/0.040
DP01-2122680M	68	32.8	38.0	14.0	4.8	16.66/0.656	1.00/0.040
DP01-2122820M	82	38.0	44.0	13.0	4.8	16.66/0.656	1.00/0.040
DP01-2122101K	100	60.5	70.0	11.5	4.0	15.06/0.593	0.80/0.032
DP01-2122151K	150	74.6	86.0	9.0	4.0	15.06/0.593	0.80/0.032
DP01-2122221K	220	93.4	107.5	8.0	2.8	15.06/0.593	0.80/0.032
DP01-2122331K	330	185.7	214.0	6.0	1.6	15.00/0.591	0.60/0.024
DP01-2122471K	470	231.8	267.0	5.2	1.6	15.00/0.591	0.60/0.024
DP01-2122561K	560	255.5	294.0	4.7	1.6	15.00/0.591	0.60/0.024
DP01-2122681K	680	286.9	330.0	4.2	1.6	15.00/0.591	0.60/0.024
DP01-2122821K	820	425.8	490.0	4.0	1.3	15.00/0.591	0.50/0.020
DP01-2122102K	1000	486.4	560.0	3.6	1.0	15.00/0.591	0.50/0.020
DP01-2122122K	1200	545.8	628.0	3.2	0.8	15.00/0.591	0.50/0.020
DP01-2122152K	1500	626.1	720.0	2.9	0.8	15.00/0.591	0.50/0.020
DP01-2122182K	1800	703.8	809.5	2.3	0.8	15.00/0.591	0.50/0.020
DP01-2122222K	2200	927.0	1067	2.2	0.8	15.00/0.591	0.45/0.018

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:10KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 5%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 20°C.

# DP01 Series Unshielded Power Inductors

## Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-2627470M	47	15.20	18.0	25.0	9.0	19.00/0.750	1.40/0.055
DP01-2627680M	68	22.08	26.0	21.0	9.0	19.00/0.750	1.30/0.051
DP01-2627101K	100	28.38	33.0	17.0	9.0	19.80/0.780	1.30/0.051
DP01-2627151K	150	45.16	52.0	13.5	5.5	19.80/0.780	1.10/0.043
DP01-2627221K	220	66.85	77.0	12.0	5.5	19.80/0.780	1.00/0.039
DP01-2627331K	330	95.80	110.5	9.5	4.5	20.60/0.811	0.90/0.036
DP01-2627471K	470	134.50	155.0	8.0	4.0	19.00/0.750	0.85/0.034
DP01-2627681K	680	182.80	210.5	6.5	2.8	18.20/0.717	0.80/0.032
DP01-2627102K	1000	295.50	340.0	5.6	2.0	19.00/0.750	0.70/0.028
DP01-2627152K	1500	402.60	463.0	4.5	2.0	19.00/0.750	0.65/0.026
DP01-2627222K	2200	658.30	757.0	3.6	1.3	19.50/0.768	0.55/0.022
DP01-2627332K	3300	853.78	982.0	3.1	1.3	19.00/0.750	0.55/0.022
DP01-2627472K	4700	1242.5	1429	2.5	1.0	19.00/0.750	0.50/0.020

## Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-4128470M	47	12.77	15.0	40.0	14.4	28.96/1.140	1.70/0.067
DP01-4128560M	56	13.99	16.5	38.0	14.4	28.96/1.140	1.70/0.067
DP01-4128680M	68	15.47	18.0	35.0	14.4	28.96/1.140	1.70/0.067
DP01-4128101K	100	18.87	22.0	28.5	14.4	28.96/1.140	1.70/0.067
DP01-4128151K	150	28.86	33.5	24.0	11.4	28.57/1.125	1.50/0.060
DP01-4128221K	220	38.23	44.0	19.5	11.4	28.57/1.125	1.50/0.060
DP01-4128271K	270	47.45	55.0	16.0	11.4	29.36/1.156	1.40/0.055
DP01-4128391K	390	73.77	85.0	12.0	9.0	30.15/1.187	1.20/0.047
DP01-4128561K	560	96.71	111.5	11.0	7.2	28.57/1.125	1.15/0.045
DP01-4128821K	820	136.0	156.5	10.0	7.2	30.15/1.187	1.10/0.043
DP01-4128102K	1000	177.1	204.0	9.5	5.5	26.97/1.062	1.00/0.040
DP01-4128152K	1500	229.2	264.0	7.5	4.5	29.36/1.156	1.00/0.040
DP01-4128222K	2200	390.0	449.0	5.5	4.0	26.97/1.062	0.80/0.032
DP01-4128332K	3300	516.1	594.0	5.0	2.8	26.97/1.062	0.80/0.032
DP01-4128472K	4700	784.3	902.0	4.0	2.0	28.19/1.110	0.70/0.028
DP01-4128682K	6800	1237.5	1424.0	3.5	1.6	28.19/1.110	0.60/0.024
DP01-4128103K	10000	2051.5	2360.0	2.8	1.3	29.46/1.160	0.50/0.020
DP01-4128153K	15000	2612.0	3004.0	1.9	1.3	29.46/1.160	0.50/0.020

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:10KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 5%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 20°C.

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## Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-4138221K	220	29.2	34.0	21.5	13.5	27.9/1.098	1.70/0.067
DP01-4138331K	330	37.8	44.0	18.0	13.5	28.2/1.110	1.70/0.067
DP01-4138471K	470	58.4	67.5	14.5	11.4	27.2/1.071	1.50/0.059
DP01-4138681K	680	78.7	91.0	11.0	9.0	27.2/1.071	1.40/0.055
DP01-4138102K	1000	127.8	147.0	10.0	7.2	28.5/1.122	1.20/0.047
DP01-4138152K	1500	181.0	208.5	7.4	5.5	28.5/1.122	1.10/0.044
DP01-4138222K	2200	270.3	311.0	6.7	5.5	29.5/1.162	1.00/0.040
DP01-4138332K	3300	392.7	452.0	5.2	4.0	28.9/1.138	0.90/0.036
DP01-4138472K	4700	538.1	619.0	4.2	4.0	28.9/1.138	0.85/0.034
DP01-4138682K	6800	754.8	868.5	3.8	2.8	26.9/1.059	0.80/0.032
DP01-4138103K	10000	1197.5	1377.5	3.1	2.0	28.7/1.130	0.70/0.028
DP01-4138153K	15000	1521.3	1750.0	2.6	1.8	28.7/1.130	0.70/0.028

## Electrical Characteristic

Part Number	Inductance	DCR		Isat	Irms	D	E
	L0(uH)	(mΩ)Typ.	(mΩ)Max.	(A)Typ.	(A)Typ.	mm/inches	mm/inches
DP01-5038681K	680	66.50	76.5	14.0	11.4	36.0/1.418	1.50/0.059
DP01-5038122K	1200	128.20	147.5	11.0	9.0	34.5/1.358	1.30/0.052
DP01-5038182K	1800	185.70	214.0	8.5	7.2	33.5/1.319	1.20/0.048
DP01-5038222K	2200	222.50	256.0	7.6	7.2	35.5/1.398	1.20/0.048
DP01-5038272K	2700	268.70	309.0	7.2	5.5	34.5/1.358	1.10/0.044
DP01-5038392K	3900	398.70	459.0	6.0	4.5	34.5/1.358	1.00/0.040
DP01-5038562K	5600	488.50	562.0	5.5	4.5	34.5/1.358	1.00/0.040
DP01-5038103K	10000	818.40	941.5	3.7	4.0	36.8/1.449	0.90/0.036
DP01-5038123K	12000	1089.10	1253.0	3.3	2.8	35.5/1.398	0.80/0.032
DP01-5038153K	15000	1246.8	1434.0	3.0	2.8	35.5/1.398	0.80/0.032
DP01-5038183K	18000	1697.0	1952.0	2.8	2.7	35.5/1.398	0.70/0.028
DP01-5038223K	22000	1929.0	2218.5	2.5	2.0	35.5/1.398	0.70/0.028
DP01-5038273K	27000	2795.0	3214.5	2.1	1.7	34.8/1.370	0.60/0.024
DP01-5038333K	33000	3197.0	3677.0	2.0	1.7	34.8/1.370	0.60/0.024
DP01-5038393K	39000	3490.0	4014.0	1.8	1.4	34.5/1.358	0.60/0.024
DP01-5038473K	47000	5086.0	5849.0	1.6	1.4	34.5/1.358	0.50/0.020

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:10KHz,1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 5%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 20°C.