Power Factor Correction Choke

multicomp PRO

RoHS Compliant

Features

- Alloy powder based DIP Inductor with lower core loss.
- No thermal aging concerns.
- Low leakage magnetic flux.
- Elimination for impulse (EMI) noise.
- High current output chokes, up to 46.6 Amp with approx. 50% roll off.
- Designed and developed for Power Factor Correction applications.

Specification

Inductance Range	: 100uH to 1000uH.
Foot Print	: 50.5mm × 27mm max., 57 max. Height.
Surge Voltage	: 400V DC.
Operating Temperature Range	: -55°C to + 130°C.

Electrical Characteristics

Part Number	OCL[1] (uH) ±10%	DCR (mΩ) Max.	Isat1[2] (A) @25°C	L@Isat1[2] (uH) Min.	Isat2[2] (A) @25°C	L@Isat2[2] (uH) Min.	Isat3[2] (A) @25°C	L@Isat3[2] (uH) Min.	Irms[3] (A) @25°C
MPFC515727B-101K	100	13.8	24.3	76.3	31.9	65.5	46.6	45.3	21.2
MPFC515727B-201K	200	23	17.5	146.9	23	126	33.6	87.2	16.4
MPFC515727B-251K	250	32	15.7	183.1	20.6	157	30.1	108.7	13.9
MPFC515727B-351K	350	38	13.2	258.2	17.4	221.4	25.3	153.3	12.5
MPFC515727B-471K	470	48	11.4	346.2	15	296.9	21.9	205.5	11.1
MPFC515727B-561K	560	61	10.5	412	13.7	353.3	20.1	244.6	9.9
MPFC515727B-691K	690	76.5	9.4	508.7	12.4	436.2	18	302	8.5
MPFC515727B-821K	820	95	8.6	601.6	11.4	515.9	16.6	357.2	7.6
MPFC515727B-102K	1000	121.5	7.7	747.9	10.2	641.3	14.9	444.0	6.7

Notes:

1. Open Circuit Inductance (OCL) and L@Isat are measured at 100KHz,0.25V@ 25ºC.
2. Isat1: DC current that causes inductance to drop 20%(Typ.) from OCL (Ta=25°C).
   Isat2: DC current that causes inductance to drop 30%(Typ.) from OCL (Ta=25°C).
   Isat3: DC current that causes inductance to drop 50%(Typ.) from OCL (Ta=25°C).
3. Irms: DC current that causes an approximate temperature rise (ΔT) of 40°C (Ta=25ºC).

Mechanical Dimension

Part Number	Dim. A (mm) Max.	Dim. B (mm) Max.	Dim. C (mm) Max.	Dim. D (mm) ±0.5	Dim. E1 (mm) ±0.5	Dim. E2 (mm) ±0.5	Dim. E3 (mm) ±0.5	Dim. E4 (mm) ±0.5	Dim. F1 (mm) ±0.1	Dim. F2 (mm) ±0.1	Dim. H (mm) Ref.	Fig.
MPFC515727B-101K	50.5	27	57	5	15	15	18	/	Φ1.2	Φ2	Φ2.5	1
MPFC515727B-201K										Φ1.8	Φ2.3	
MPFC515727B-251K										Φ1.6	Φ2.1	
MPFC515727B-351K	50		56.5							Φ1.6	Φ2.1	
MPFC515727B-471K										Φ1.5	Φ2	
MPFC515727B-561K										Φ1.4	Φ1.9	
MPFC515727B-691K	49.5		56							Φ1.3	Φ1.8	
MPFC515727B-821K					/	/		30		/	Φ1.7	2
MPFC515727B-102K										/	Φ1.7	

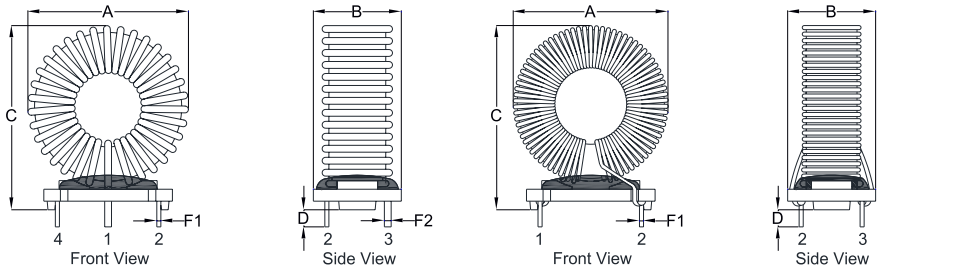


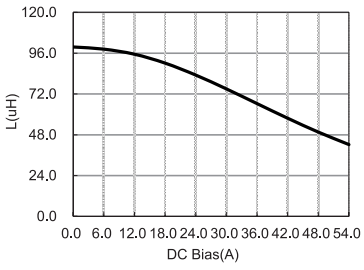
Fig. 1 Fig. 2

Note:
Fig.1 : PIN2 & PIN4 provided for mounting stability only.
Fig.2 : PIN1 & PIN3 provided for mounting stability only.

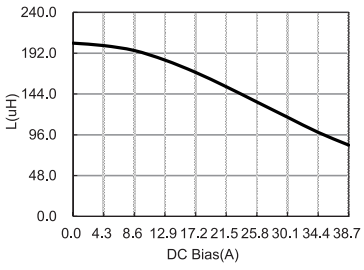
Dimensions : Millimetres

Inductance vs. Current Characteristics

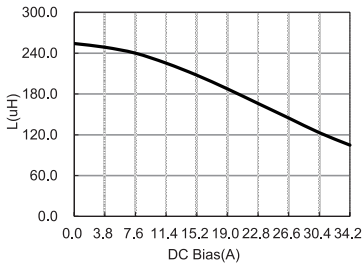
MPFC515727B-101K



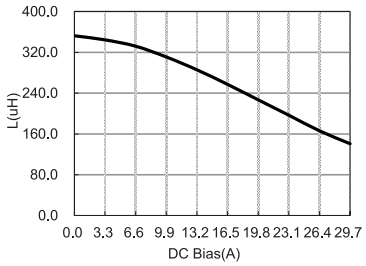
MPFC515727B-201K



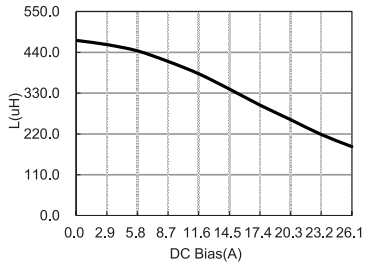
MPFC515727B-251K



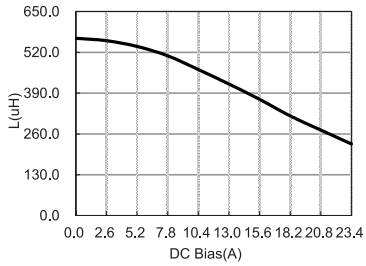
MPFC515727B-351K



MPFC515727B-471K



MPFC515727B-561K



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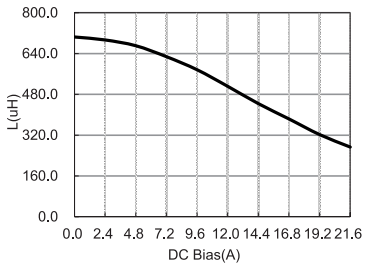
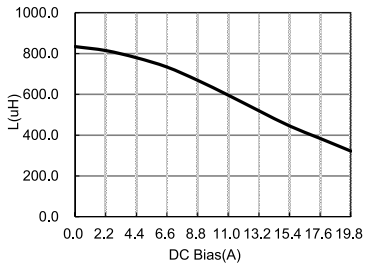
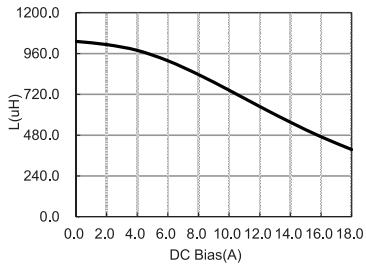


MPFC515727B-821K



MPFC515727B-102K



Part Number Table

Description	Part Number
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 100uH	MPFC515727B-101K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 200uH	MPFC515727B-201K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 250uH	MPFC515727B-251K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 350uH	MPFC515727B-351K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 470uH	MPFC515727B-471K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 560uH	MPFC515727B-561K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 690uH	MPFC515727B-691K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 821uH	MPFC515727B-821K
Power Factor Correction Choke, Foot height 50.5mm × 27mm, 1000uH	MPFC515727B-102K