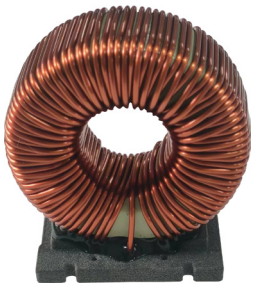
Power Factor Correction Choke

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 55.5 Amp with approx. 50% roll off.
- Designed and developed for Power Factor Correction applications.

Specification

Inductance Range	: 105uH to 1000uH.
Foot Print	: 53.9mm × 31mm max., 60 max. Height.
Surge Voltage	: 400V DC.
Operating Temperature Range	: -55°C to + 130°C.

Electrical Characteristics

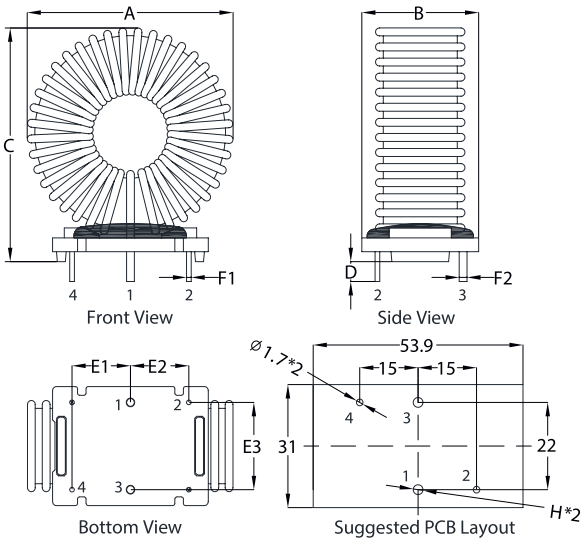
Part Number	OCL[1] (uH) ±10%	DCR (mΩ) Max.	Isat1[2] (A) @25°C	L@Isat1[2] (uH) Min.	Isat2[2] (A) @25°C	L@Isat2[2] (uH) Min.	Isat3[2] (A) @25°C	L@Isat3[2] (uH) Min.	Irms[3] (A) @25°C
MPFC546031B-101K	105	14.5	28.3	77.8	37.2	66.7	55.5	46.2	24.3
MPFC546031B-102K	205	20.5	20.3	151.1	26.7	129.5	39.9	89.7	21
MPFC546031B-201K	250	26.5	18.4	183.7	24.2	157.5	36.1	109	17.6
MPFC546031B-251K	350	40	15.5	258.4	20.4	221.6	30.5	153.4	13.7
MPFC546031B-351K	470	54.5	13.4	345.8	17.6	296.5	26.3	205.3	11.7
MPFC546031B-471K	500	57	13	369.7	17.1	317	25.5	219.5	11.5
MPFC546031B-501K	680	74	11.2	500.8	14.6	429.4	21.9	297.3	10
MPFC546031B-681K	820	81	10.1	604.5	13.3	518.3	19.9	358.9	9.5
MPFC546031B-821K	1000	106.5	9.2	734.8	12.1	630.1	18	436.3	8.3

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. F1 (mm) ±0.1	Dim. F2 (mm) ±0.1	Dim. H (mm) Ref.
MPFC546031B-101K	53.9	31	60	5	15	15	22	Φ1.2	Φ2	Φ2.6
MPFC546031B-102K									Φ2	Φ2.6
MPFC546031B-201K									Φ1.8	Φ2.4
MPFC546031B-251K	52.5		59						Φ1.5	Φ2.1
MPFC546031B-351K									Φ1.4	Φ2
MPFC546031B-471K									Φ1.4	Φ2
MPFC546031B-501K	52		58.5						Φ1.3	Φ1.9
MPFC546031B-681K									Φ1.3	Φ1.9
MPFC546031B-821K									Φ1.2	Φ1.8

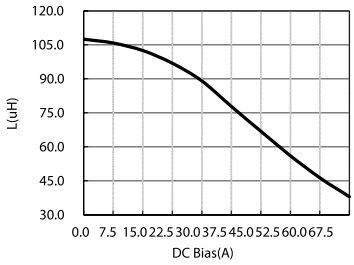


Dimensions : Millimetres

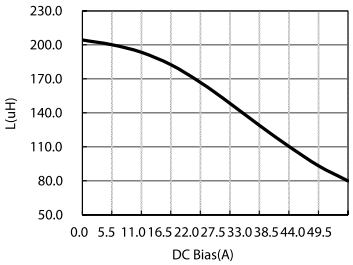
Note: PIN2 & PIN4 provided for mounting stability only.

Inductance vs. Current Characteristics

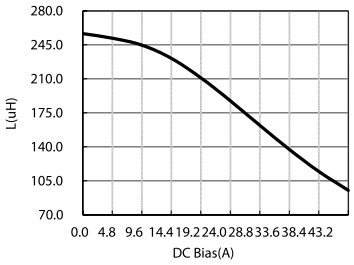
MPFC546031B-101K



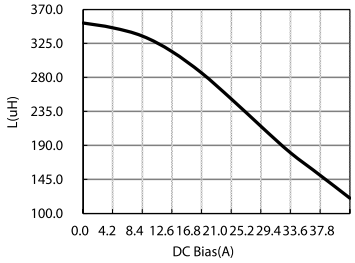
MPFC546031B-102K



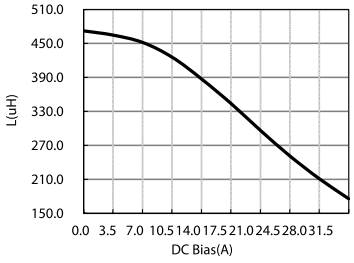
MPFC546031B-201K



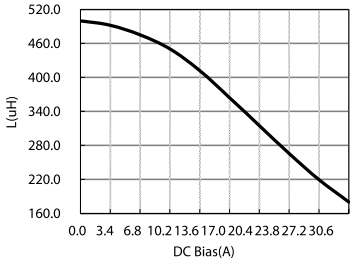
MPFC546031B-251K



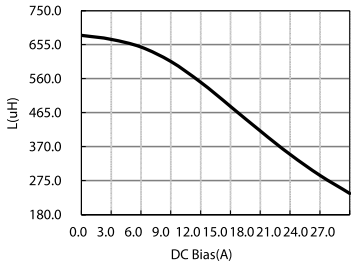
MPFC546031B-351K



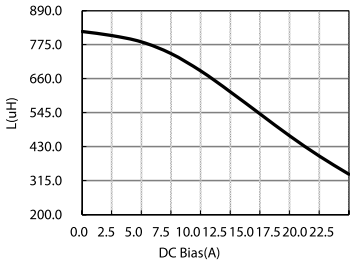
MPFC546031B-471K



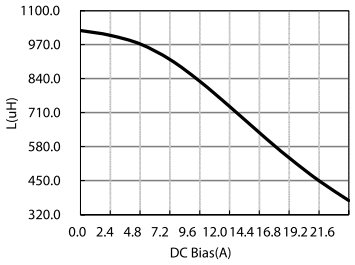
MPFC546031B-501K



MPFC546031B-681K



MPFC546031B-821K



Part Number Table

Description	Part Number
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 100uH	MPFC546031B-101K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 200uH	MPFC546031B-102K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 250uH	MPFC546031B-201K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 350uH	MPFC546031B-251K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 470uH	MPFC546031B-351K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 560uH	MPFC546031B-471K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 690uH	MPFC546031B-501K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 821uH	MPFC546031B-681K
Power Factor Correction Choke, Foot height 53.9mm × 31mm, 1000uH	MPFC546031B-821K