

1. Features of PFC333232DH Series :

- Alloy powder based DIP Inductor with lower core loss.
- No thermal aging concerns.
- Inductance Range: 82.0 uH to 1600.0 uH, custom values are welcomed.
- High current output chokes, up to 41.9 Amp with approx. 50% roll off.
- Designed and developed for Power Factor Correction applications.
- Foot Print: 33.0 x 32.0mm max., 31.6mm max. Height.
- Surge Voltage: 1000VDC.
- Operating Temperature Range: -55°C to + 150°C.
- RoHs & HF compliant.
- AEC-Q200 compliant.
- MTBF = 2,083,333,333 hours, FIT = 0.48 (per billions hour) per Telcordia SR-332.



2. Electrical Characteristics of PFC333232DH Series:

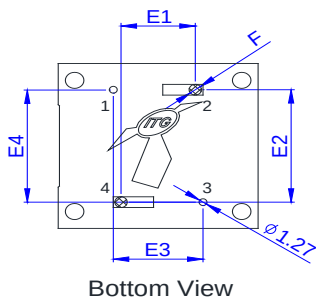
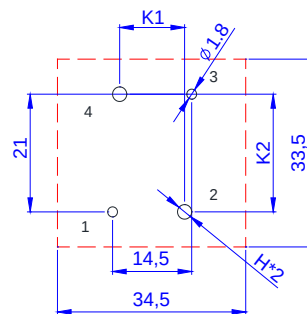
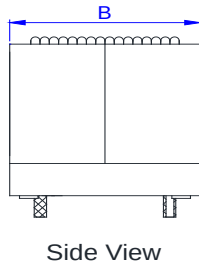
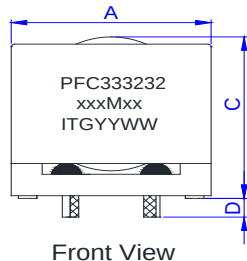
ITG Part Number	OCL ¹ (uH) ± 20%	DCR (mΩ) Max. @25°C	Isat1 ² (A) @25°C	L@Isat1 ² (uH) Min.	Isat2 ² (A) @25°C	L@Isat2 ² (uH) Min.	Isat3 ² (A) @25°C	L@Isat3 ² (uH) Min.	Irms ³ (A) @25°C
PFC333232DH-820MHF	82.0	22.5	19.7	57.2	28.0	49.0	41.9	35.0	16.1
PFC333232DH-151MHF	155.0	41.6	14.3	108.1	20.4	92.7	30.4	66.2	11.8
PFC333232DH-181MHF	185.0	50.6	13.1	128.7	18.7	110.3	27.9	78.8	10.7
PFC333232DH-231MHF	230.0	56.3	11.8	158.9	16.8	136.2	25.1	97.3	10.2
PFC333232DH-311MHF	315.0	82.3	10.0	219.4	14.3	188.1	21.4	134.3	8.4
PFC333232DH-661MHF	660.0	173.7	7.0	459.3	9.9	393.7	14.8	281.2	5.8
PFC333232DH-102MHF	1050.0	256.2	5.5	734.7	7.8	629.8	11.6	449.8	4.7
PFC333232DH-142MHF	1400.0	362.5	4.8	973.7	6.8	834.6	10.1	596.1	4.0
PFC333232DH-162MHF	1600.0	466.2	4.5	1095.3	6.4	938.8	9.6	670.6	3.6

Notes:

1. Open Circuit Inductance (OCL) and L@Isat are measured at 100KHz, 0.25V@ 25°C.
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 for an approximate temperature rise of 40°C without core loss. Derating is necessary for AC currents. PCB pad layout, trace thickness and width, air-flow and proximity of other heat generating components will affect the temperature rise. It is recommended the part temperature not exceed 150°C under worst case operating conditions as verified in the end application.

3. Mechanical Dimension of PFC333232DH Series (Unit: mm):

ITG Part Number	A	B	C	D	E1	E2	E3	E4	F	H	K1	K2
	Max.	Max.	Max.	±0.50	±0.50	±0.50	±0.50	±0.50	Max.	Typ.	Typ.	Typ.
PFC333232DH-820MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	2.20	2.70	12.00	21.00
PFC333232DH-151MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	2.00	2.50	12.00	21.00
PFC333232DH-181MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.85	2.35	12.00	21.00
PFC333232DH-231MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.85	2.35	12.00	21.00
PFC333232DH-311MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.70	2.20	12.00	21.00
PFC333232DH-661MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.50	2.00	12.00	21.00
PFC333232DH-102MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.40	1.90	12.00	21.00
PFC333232DH-142MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.35	1.85	12.00	21.00
PFC333232DH-162MHF	33.00	32.00	31.60	3.50	12.00	21.00	14.50	21.00	1.25	1.75	12.00	21.00



Part Marking:

PFC333232: Series Name.

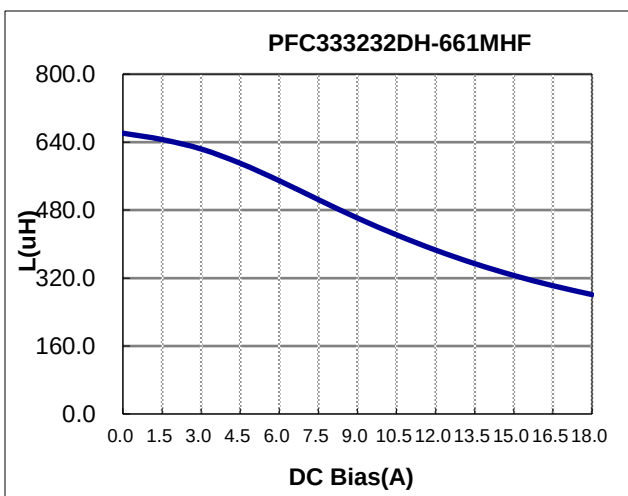
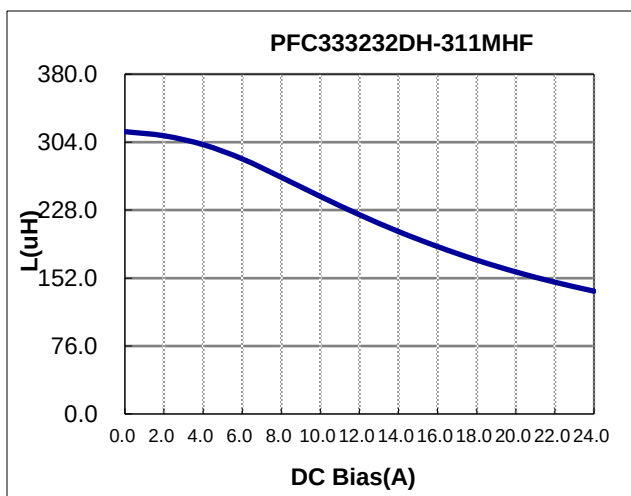
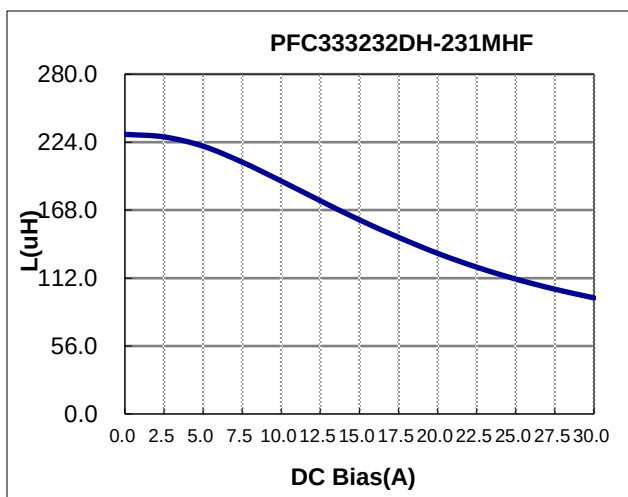
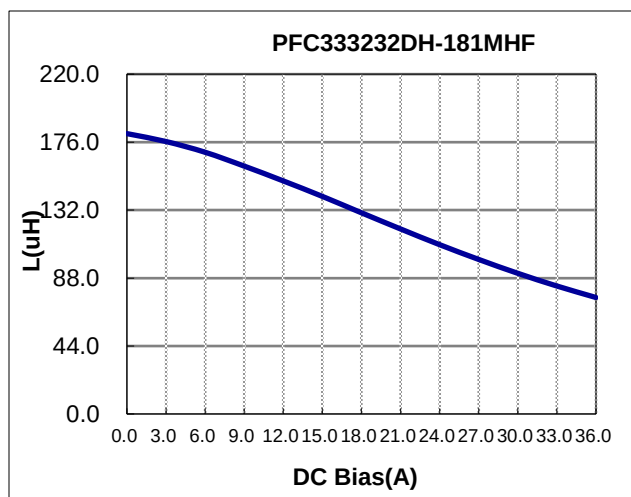
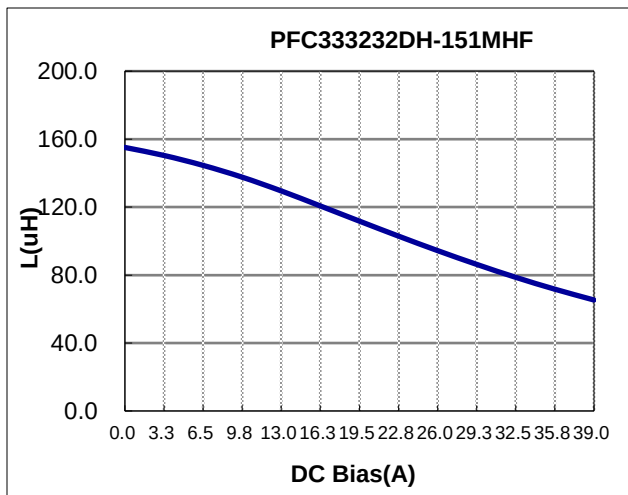
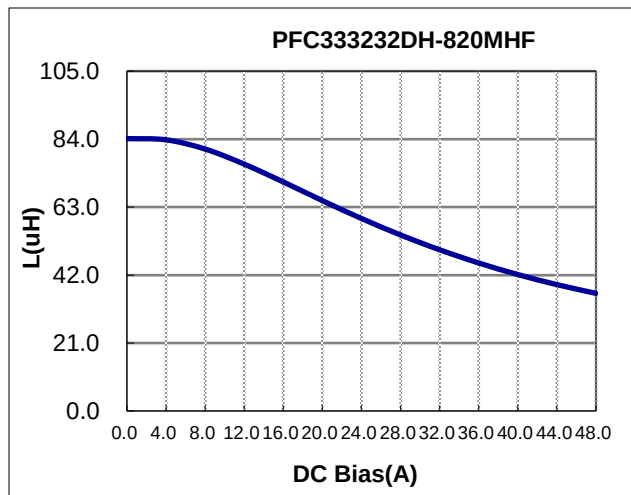
xxxMxx: xxx is inductance value in uH(R: decimal point),

M is tolerance, xx is special code.

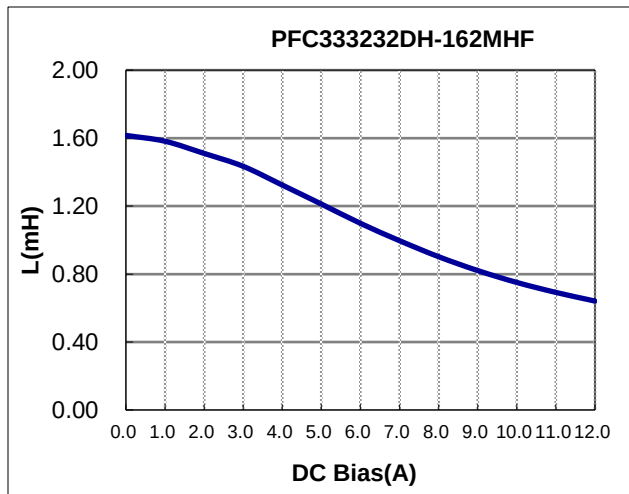
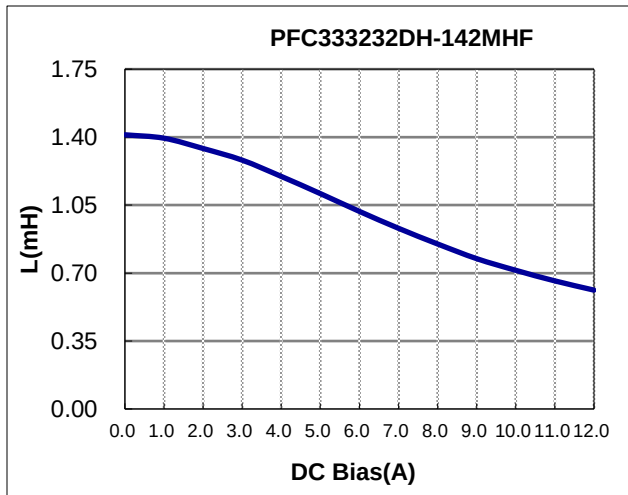
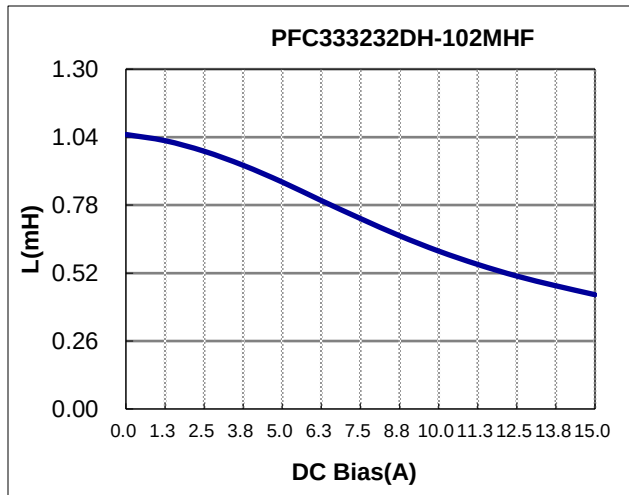
ITGYYWW: ITG is Company Name and YYWW is Date Code.

Note: PIN1 & PIN3 provided for mounting stability only.

4. Inductance vs. Current Characteristics of PFC333232DH Series :

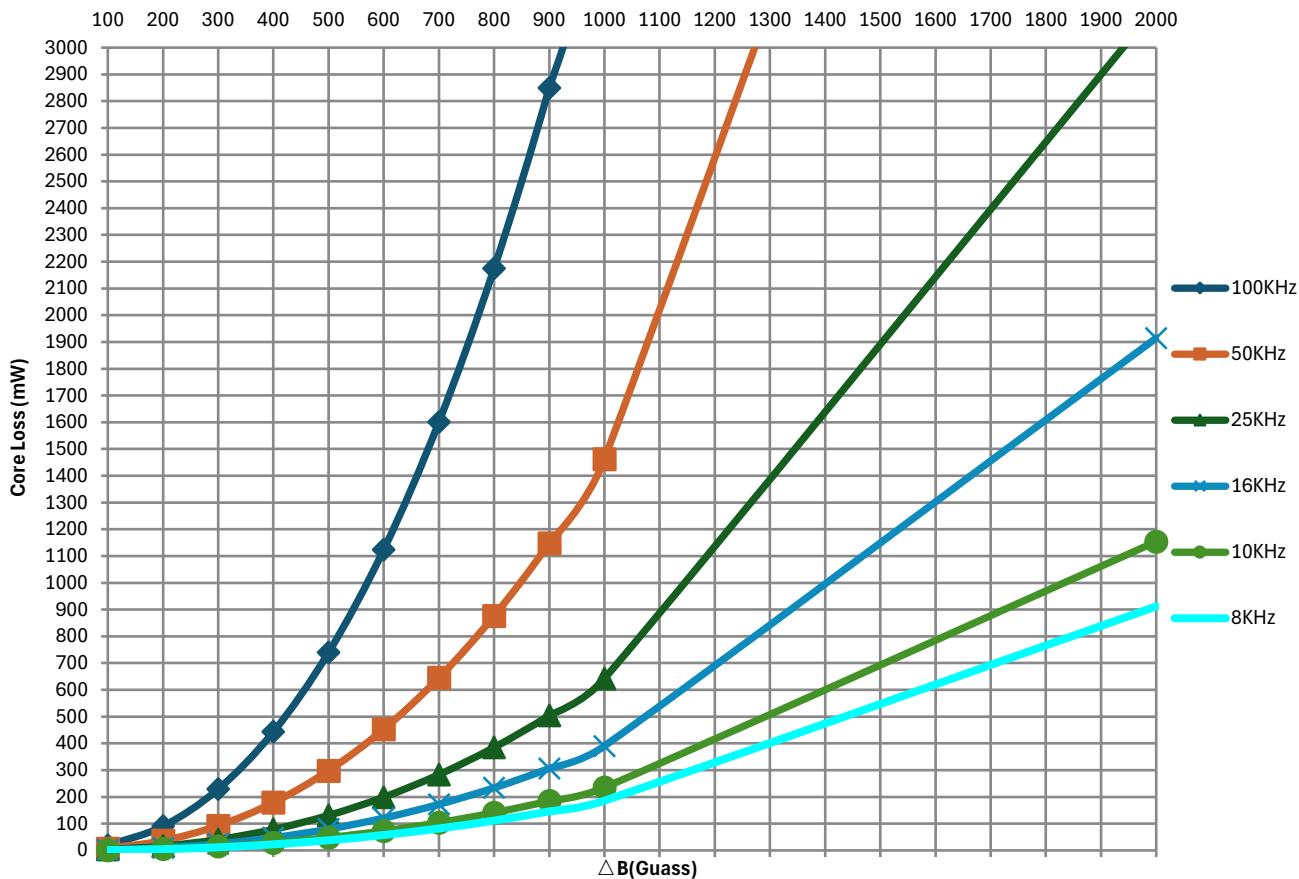


4. Inductance vs. Current Characteristics of PFC333232DH Series :



5. Core Loss Curves:

PFC333232DH Series Core Loss



Where $\Delta B = k * L$ (uH) * ΔI (Amp.)

k: 820 is 2.74 , 151 is 1.99 , 181 is 1.82 , 231 is 1.64

311 is 1.40 , 661 is 0.97 , 102 is 0.76 , 142 is 0.66 , 162 is 0.62