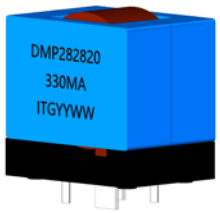
DMP282820A Series

1. Features of DMP282820A Series :



- Alloy powder based DIP Inductor with lower core loss.
- No thermal aging concerns.
- Inductance Range: 33.0 uH to 330.0 uH, custom values are welcomed.
- High current output chokes, up to 27.6 Amp with approx. 50% roll off.
- Designed and developed for Power Factor Correction applications.
- Foot Print: 27.5 x 20.0mm max., 28.0mm max. Height.
- Surge Voltage: 400VDC.
- Operating Temperature Range: -55°C to + 150°C.
- RoHs & HF compliant.
- MTBF = 2,083,333,333 hours, FIT = 0.48 (per billions hour) per Telcordia SR-332.

2. Electrical Characteristics of DMP282820A Series:

ITG Part Number	OCL [1] (uH) ±20%	DCR (mΩ) ±10% @25℃	Isat1 [2] (A) @25℃	L@Isat1 [2] (uH) Min.	Isat2 [2] (A) @25℃	L@Isat2 [2] (uH) Min.	Isat3 [2] (A) @25℃	L@Isat3 [2] (uH) Min.	Irms [3] (A) @25℃
DMP282820A-330MHF	33.0	4.5	12.4	23.8	16.9	20.2	27.6	14.1	26.0
DMP282820A-500MHF	50.0	6.8	10.2	35.1	13.9	29.8	22.7	20.8	21.0
DMP282820A-900MHF	90.0	12.5	7.6	64.4	10.3	54.6	16.8	38.2	15.5
DMP282820A-121MHF	125.0	16.7	6.4	88.7	8.7	75.3	14.3	52.7	13.5
DMP282820A-161MHF	165.0	22.3	5.6	117.0	7.6	99.3	12.4	69.4	11.7
DMP282820A-221MHF	220.0	31.0	4.8	157.8	6.5	133.9	10.7	93.7	10.0
DMP282820A-331MHF	330.0	51.6	3.9	235.7	5.3	200.1	8.7	140.0	7.7

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℃).
   Isat2: DC current that causes inductance to drop 30%(Typ.) from OCL ;(Ta=25℃).
   Isat3: DC current that causes inductance to drop 50%(Typ.) from OCL ;(Ta=25℃).
3. Irms: DC current for an approximate temperature rise of 40℃ 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.

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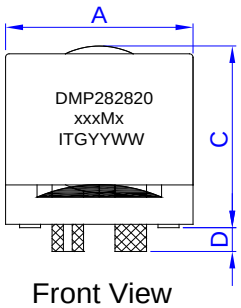
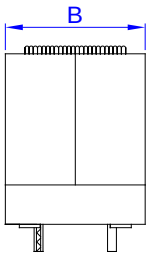
3. Mechanical Dimension of DMP282820A Series (Unit: mm):

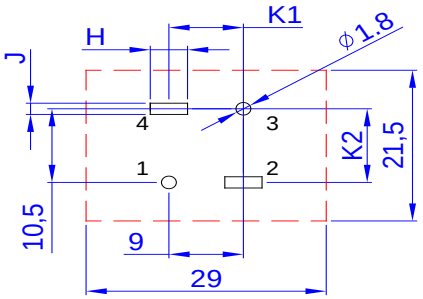
ITG Part Number	A Max.	B Max.	C Max.	D ±0.50	E1/E3 ±0.50	E2 ±0.50	E4 ±0.50	F ±0.40	G Typ.	H Typ.	J Typ.	K1 Typ.	K2 Typ.
DMP282820A-330MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.50	0.70	5.50	1.30	9.00	10.50
DMP282820A-500MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.50	0.55	5.50	1.15	9.00	10.50
DMP282820A-900MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.50	0.40	5.50	1.00	9.00	10.50
DMP282820A-121MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.50	0.35	5.50	0.95	9.00	10.50
DMP282820A-161MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.50	0.30	5.50	0.90	9.00	10.50
DMP282820A-221MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.50	0.25	5.50	0.85	9.00	10.50
DMP282820A-331MHF	27.50	20.00	28.00	3.50	9.00	10.50	10.50	4.00	0.20	5.00	0.80	9.00	10.50



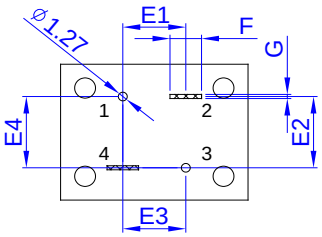
Front View



Side View



Suggested PCB Layout



Bottom View

Note:PIN1 & PIN3 provided for mounting stability only.

Part Marking:
DMP282820: Series Name.
xxxMx: xxx is inductance value in uH(R: decimal point),
M is tolerance, x is special code.
ITGYYWW: ITG is Company Name and YYWW is Date Code.

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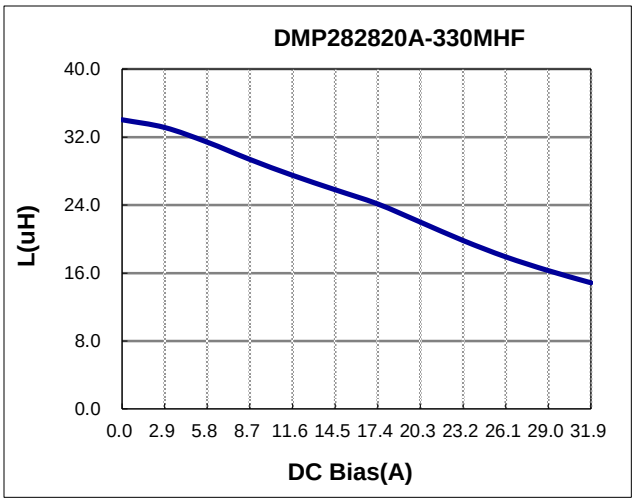
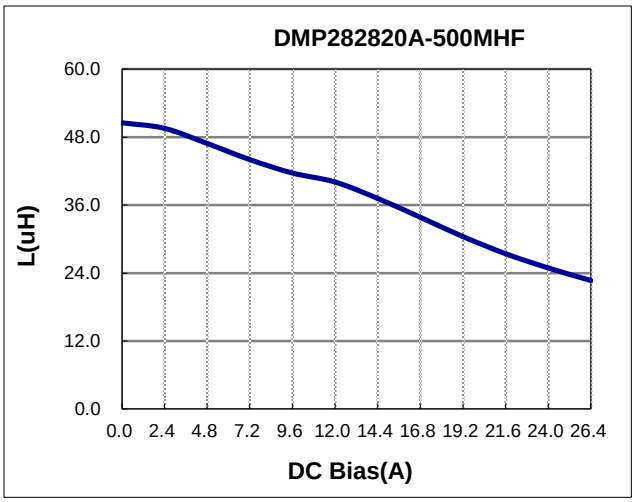
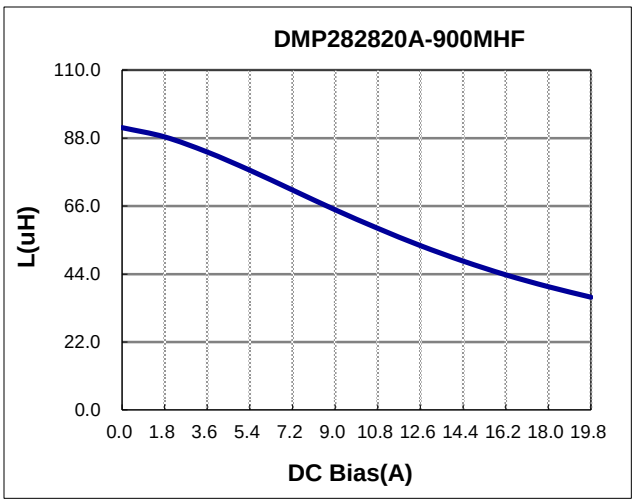
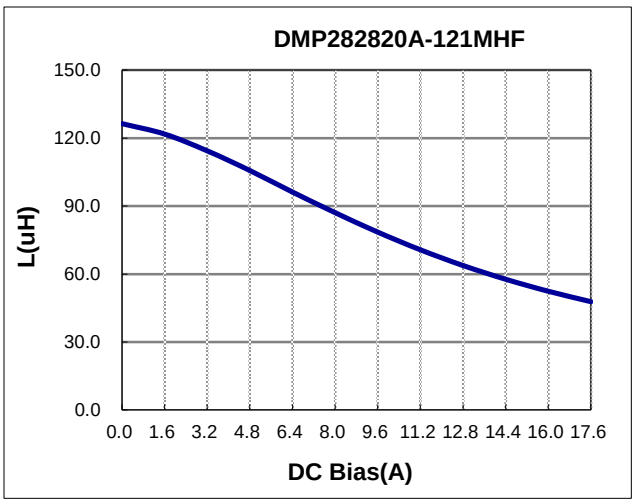
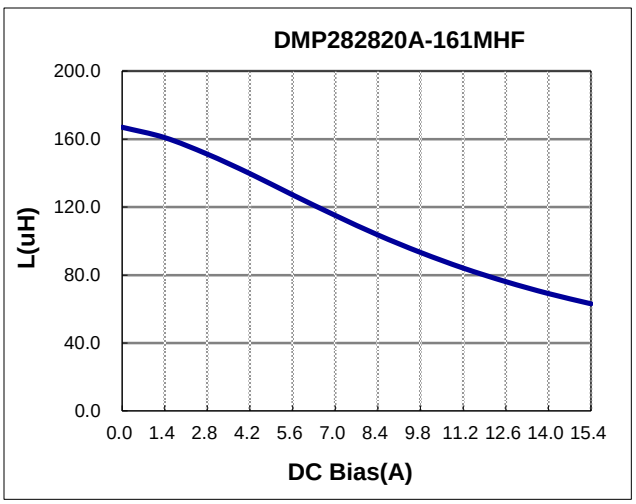
4. Inductance vs. Current Characteristics of DMP282820A Series :

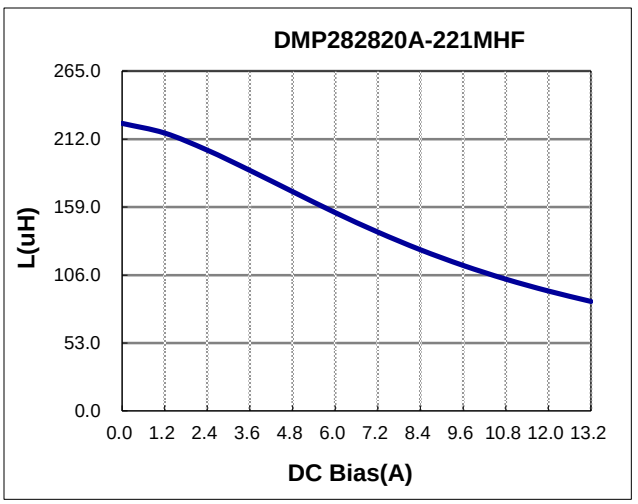












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