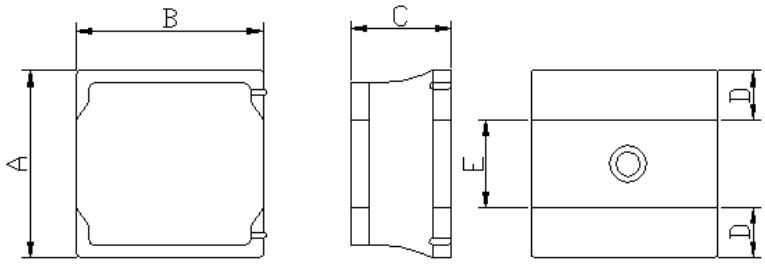
Power Inductor

HPC3010TF-SERIES

1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature :-40~+125℃ (Including self - temperature rise)

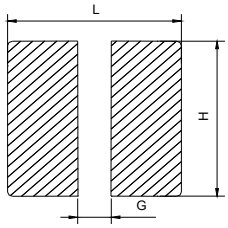
2. Dimension



A	B	C	D	E
3.0±0.2	3.0±0.2	1.0max	1.0 ref	1.0 ref

Unit:mm

Recommended Land pattern



L	G	H
3.2	1.0	3.2

3. Part Numbering

HPC	3010	TF	-	4R7	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free
D: Inductance 4R7=4.70uH
E: Inductance Tolerance K=±10%, L=±15%, M=±20%, Y=±30%.

4. Specification

Part Number	Inductance (uH)±20% @ 0 A DC	Test Frequency (Hz)	I rms (A)		I sat (A)		DCR (Ω) ±20%
			Typ	Max	Typ	Max	
HPC3010TF-1R0Y	1.00±30%	0.1V/1M	2.50	2.10	2.20	1.80	0.055
HPC3010TF-1R5Y	1.50±30%	0.1V/1M	2.20	1.90	2.00	1.50	0.070
HPC3010TF-2R2M	2.20	0.1V/1M	2.10	1.70	1.60	1.30	0.090
HPC3010TF-3R3M	3.30	0.1V/1M	1.70	1.50	1.30	1.10	0.130
HPC3010TF-4R7M	4.70	0.1V/1M	1.50	1.30	1.20	0.90	0.170
HPC3010TF-6R8M	6.80	0.1V/1M	1.30	1.00	0.90	0.77	0.260
HPC3010TF-100M	10.0	0.1V/1M	1.00	0.80	0.75	0.63	0.350
HPC3010TF-150M	15.0	0.1V/1M	0.80	0.70	0.65	0.54	0.510
HPC3010TF-220M	22.0	0.1V/1M	0.75	0.60	0.55	0.43	0.750

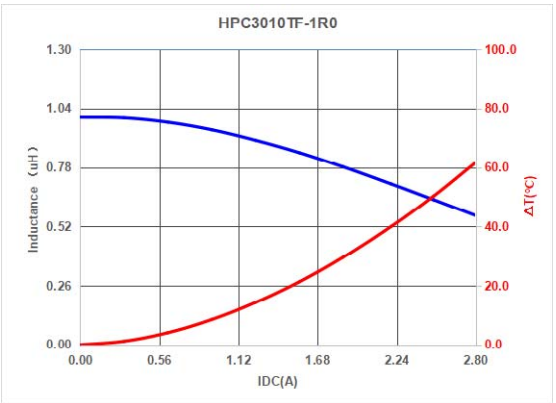
Note:

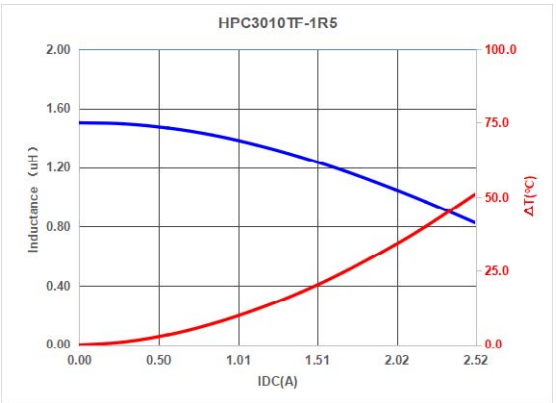
Isat：Saturation Current (Isat) will cause L0 to drop approximately 30%.

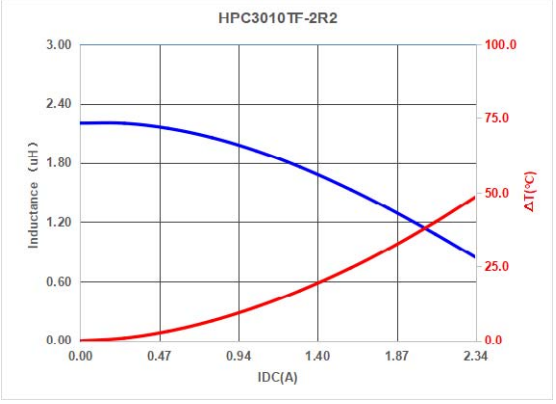
Irms：Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃

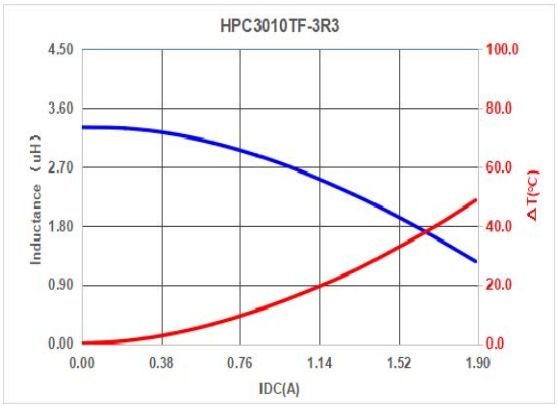
Rated DC current: The lower value of Irms and Isat.

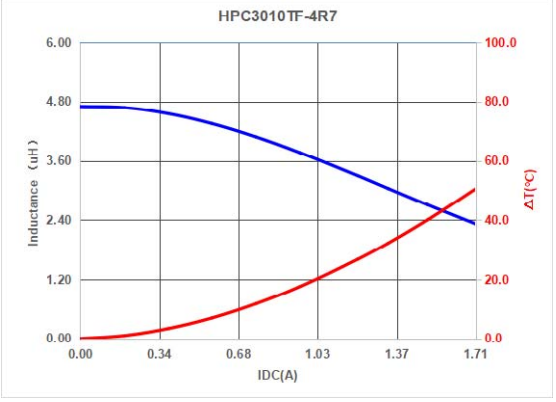
10.Typical Performance Curves

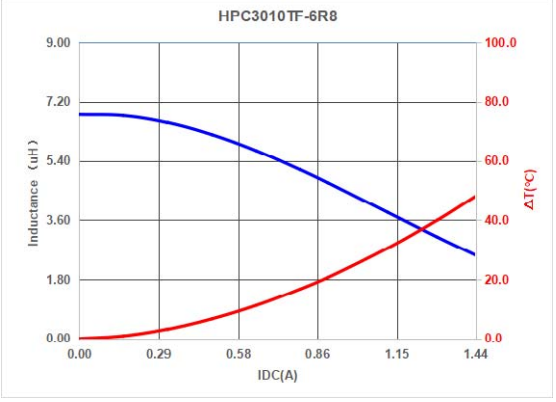


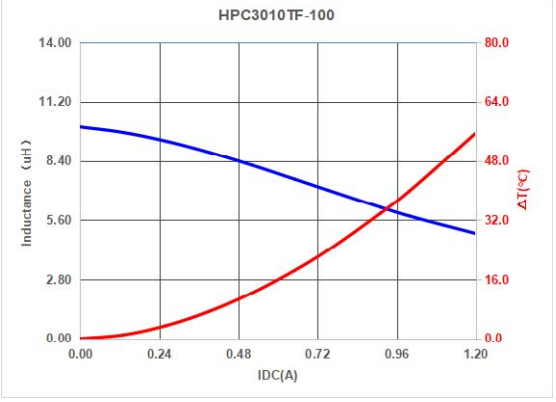


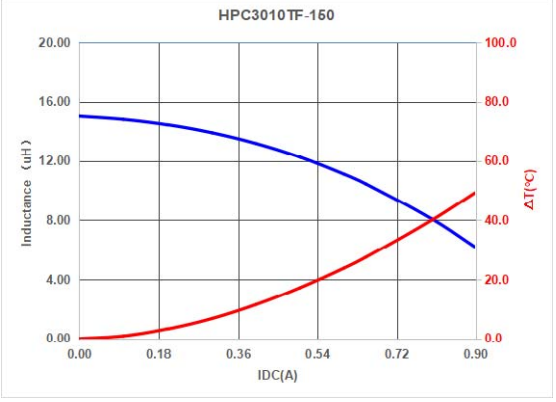


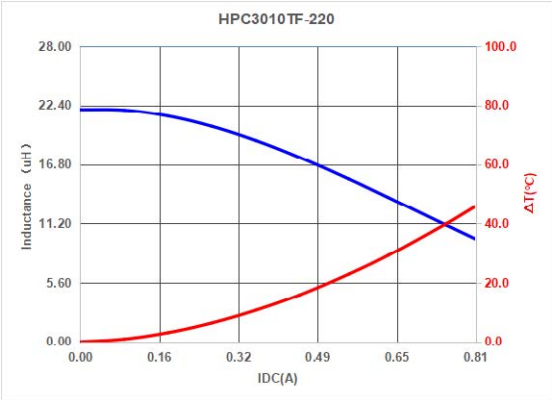











HPC3010TF-220
28.00
22.40
16.80
11.20
5.60
0.00
Inductance (uH)
100.0
80.0
60.0
40.0
20.0
0.0
ΔT(°C)
0.00
0.16
0.32
0.49
0.65
0.81
IDC(A)