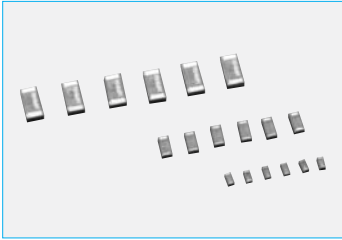




**THE DATASHEET OF  
TFL0816-47N-E**





# HPL, TFL series, high-precision, thin-film chip inductors.



These 0805, 0402 and 0201 size chip inductors are adjustment free due to their tight tolerance. Additionally, this part also offers a high self-resonance frequency of 1 GHz and high Q value and a very excellent rated current.

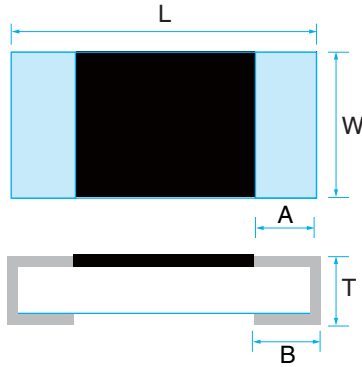
RoHS compliant

Completely lead free



## SPECIFICATIONS

### Mechanical



Dimension (Inch Size)	HPL0603 (0201)	HPL1005 (0402)	TFL0816 (0603)
L	0.60±0.05	1.00±0.10	1.60±0.10
W	0.30±0.05	0.50±0.10	0.80±0.10
A	0.07±0.05	0.15±0.10	0.30±0.20
B	0.12±0.05	0.25±0.10	0.30±0.20
T	0.28±0.05	0.40±0.10	0.45±0.10

(unit : mm)

### Electrical

Type	HPL0603		HPL1005		TFL0816				
inductance value	E-24		E-24		E-12				
inductance range (nH)	1.0~5.6	6.2~27	1.0~9.1	10~39	1.0~4.7	5.6~8.2	10~27	33~68	82~100
inductance tolerance	±0.1nH, ±0.2nH	±2%	±0.1nH, ±0.2nH	±2%	±0.2nH		±2%	±2%	
Q value (at 300MHz)	10	8~10	20~15	15~13	20	15	15	*15	*10
Q value (at 800MHz) typ.	14~17	14~16	35~25	25~20	34~30		30~25	25	15
Q value (at 1.5GHz) typ.	18~25	18~20	50~30	30~25	38~35		35~30	**	
Self resonance Frequency(GHz)	10~6.0	3.5	7.0~4.0	3.5	6.0~5.0	5.0~4.0	4.0~2.0	1.5~1.0	1.0
DC resistance(Ω)	0.1~0.8	0.8~1.5	0.01~0.4	0.5~0.8	0.10~0.25	0.50	1.0~2.0	2.0~4.5	6.0~8.5
Rated Current(A)	0.5~0.2	0.2~0.15	1.8~0.34	0.3~0.24	1.0~0.6	0.40	0.3~0.2	0.2~0.14	0.12~0.1
Package	10,000pcs/reel				5,000pcs/reel				

Measured at 500MHz in case of HPL0603, at 300MHz in case of HPL1005

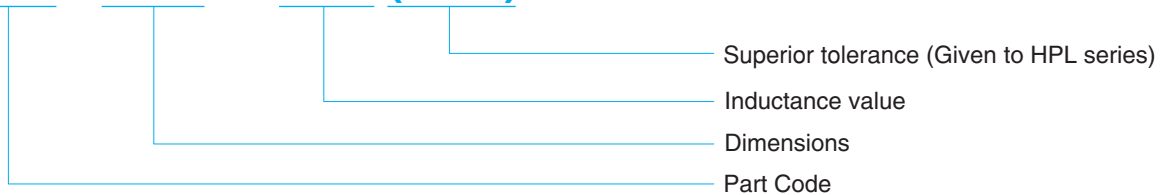
\* Measured at 200MHz in case of 33-100nH(TFL0816)

\*\* No measuring in case of 33-100nH(TFL0816)



## PART NUMBER

### HPL 0603 - 1N0 (-E02)



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