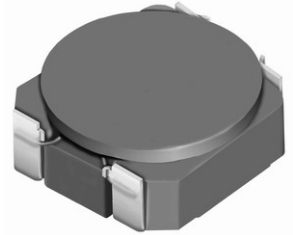


**Type: CLS3D18**

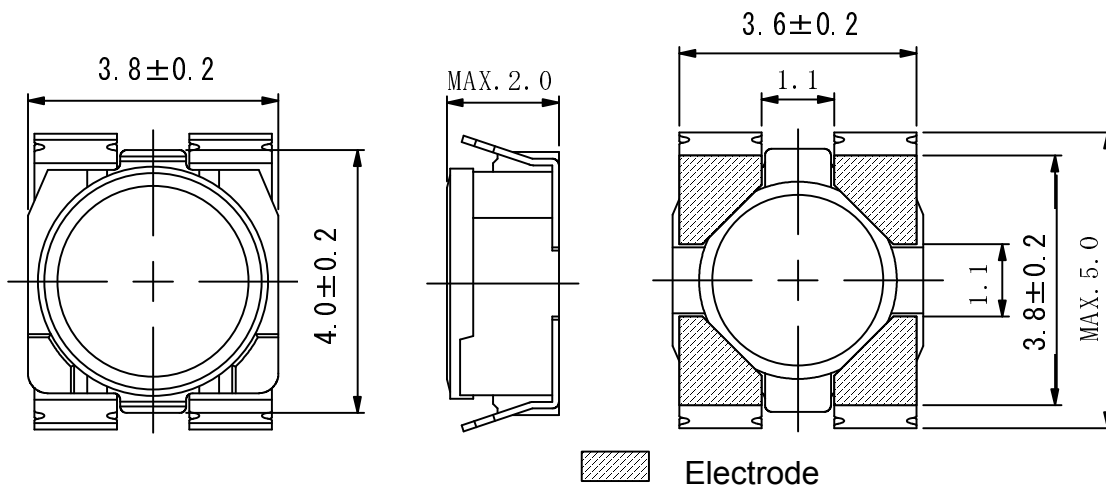
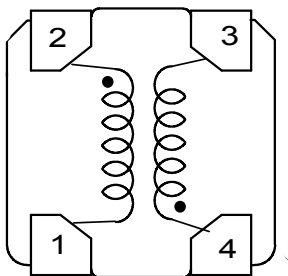
# Under Development

**◆ Description**

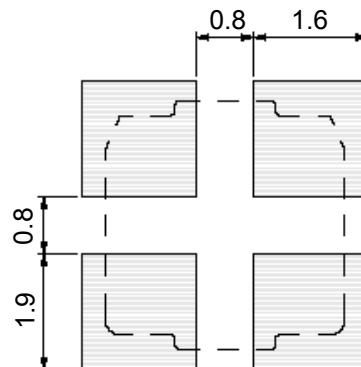
- 4 Terminal pins' type gives a flexible design as inductors or transformers.
- Can also be used as a coupled inductor, two single inductors connected in parallel, as 1:1 transformer or as an autotransformer when connected in series.
- Core material: Ferrite.
- Custom design is available.


**◆ Feature**

- Max. Operating frequency: 1MHz.
- 2 in 1 Coils for high efficiency up-down DC-DC converters.(SEPIC, Zeta, Cuk converter).
- Storage temperature range: -40°C~+105°C.
- Operating temperature range: -40°C~+105°C (including coil's self-heat).
- Product weight: 100mg(Ref.).
- Ideally used in the power supply for DSC、Note PC、DVC and W-LED backlighting.
- RoHS Compliance.

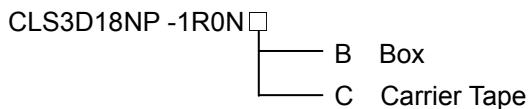
**◆ Dimensions (mm)**

**◆ Schematics (Bottom)**


“●” indicates polarity.

**◆ Land Pattern (mm)**


**Type: CLS3D18**
**◆ Specification**

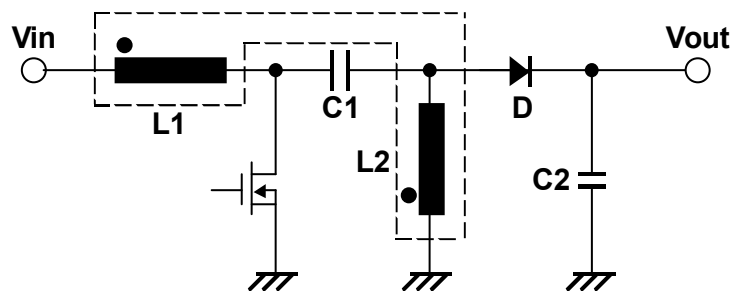
Part No.	Stamp	Inductance ( $\mu\text{H}$ ) [Within]	D.C.R. [Max.] ( $\text{m}\Omega$ ) (at 20°C)※1		Saturation Current (A) ※2				Temperature Rise current (A) ※3	
			(2-1)	(4-3)	In parallel		In series		In parallel	In series
					at 20°C	at 100°C	at 20°C	at 100°C		
CLS3D18NP-1R0N□	A	1.0±30%	56(45)	45(36)	1.65	1.53	0.82	0.72	2.10	1.02
CLS3D18NP-1R8N□	B	1.8±30%	84(67)	69(55)	1.24	1.08	0.62	0.51	1.80	0.83
CLS3D18NP-2R2N□	C	2.2±30%	95(76)	73(58)	1.12	0.95	0.53	0.46	1.60	0.80
CLS3D18NP-3R3N□	D	3.3±30%	141(113)	108(86)	1.01	0.86	0.49	0.41	1.35	0.60
CLS3D18NP-5R0N□	E	5.0±30%	200(160)	155(127)	0.73	0.63	0.35	0.32	1.17	0.50
CLS3D18NP-6R8N□	F	6.8±30%	278(222)	213(170)	0.61	0.59	0.32	0.27	0.98	0.47
CLS3D18NP-100N□	G	10±30%	404(323)	305(244)	0.51	0.45	0.24	0.23	0.75	0.34

**※ Description of Part Name**


※1. ( ) typical value.

※2. Saturation Current: The DC current at which the inductance decreases to 90% of it's nominal value.

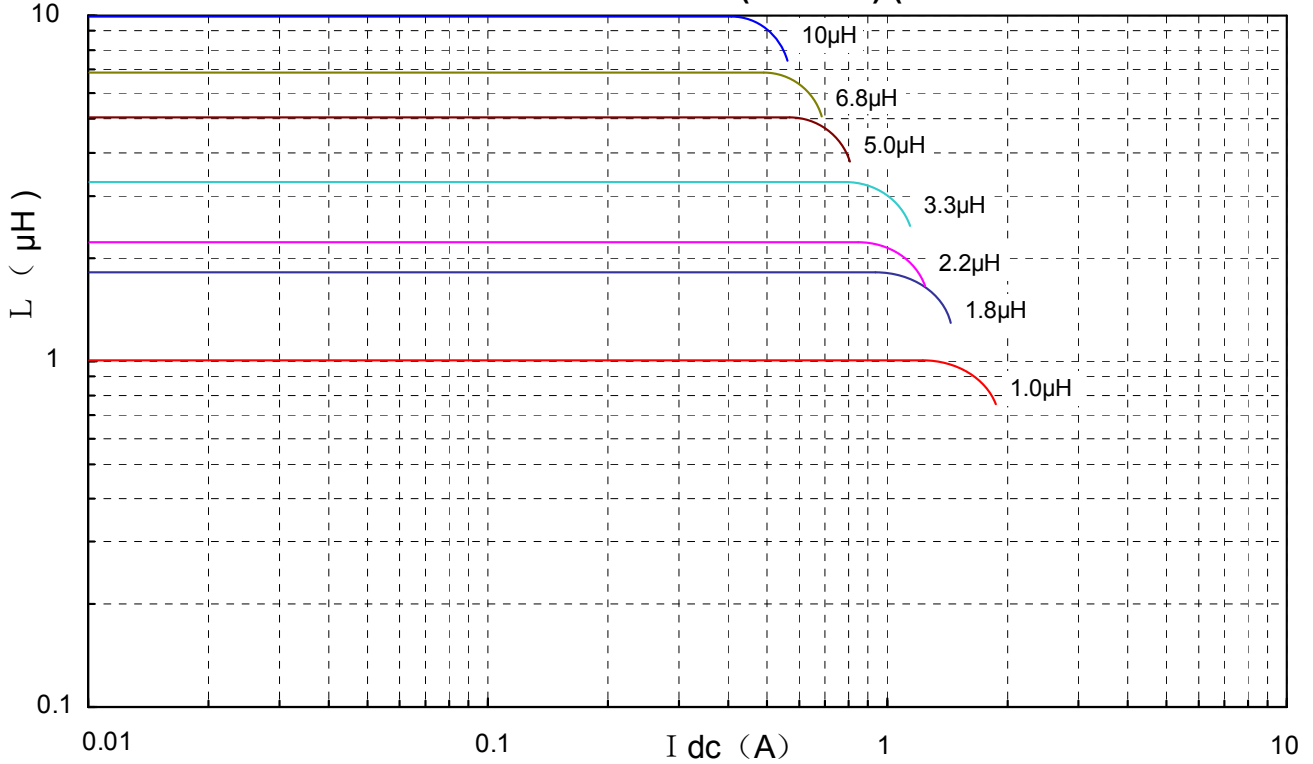
※3. Temperature rise current: The DC current at which the temperature rise is  $\Delta t=40^\circ\text{C}$ . ( $T_a=20^\circ\text{C}$ ).

**◆ Typical SEPIC Schematic**


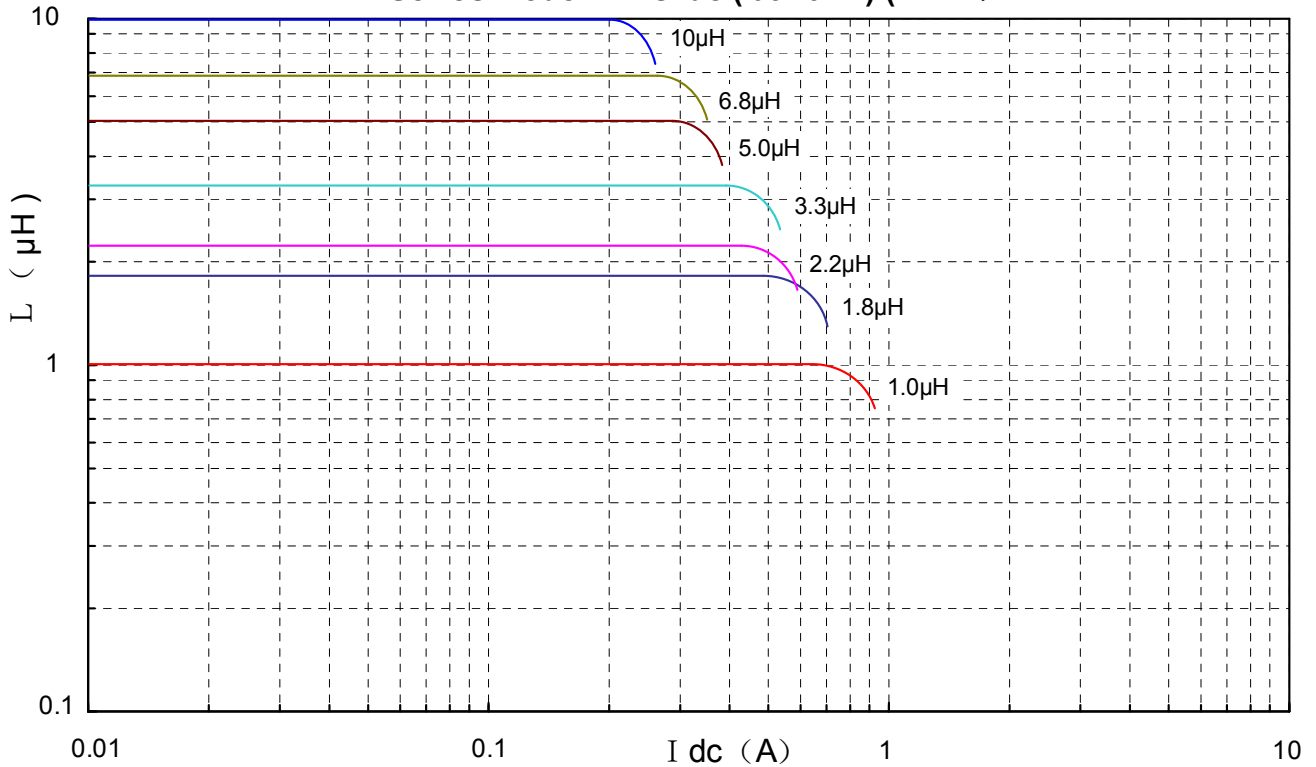
**Type: CLS3D18**

◆ Typical L Vs Current

Parallel mode L vs I<sub>dc</sub> ( at 20°C ) ( REF. )

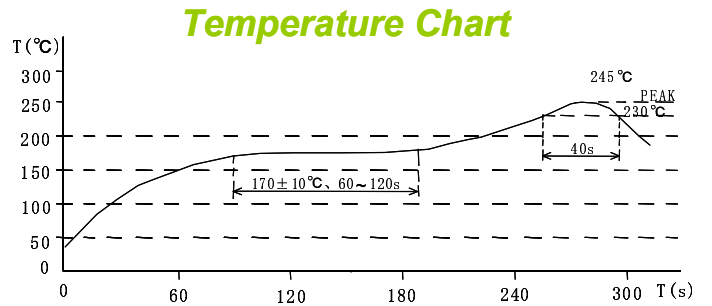
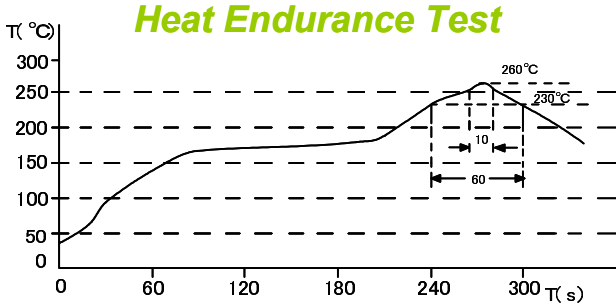


Series mode L vs I<sub>dc</sub> ( at 20°C ) ( REF. )



**Type: CLS3D18**

◆ Recommendation Reflow Condition



◆ Packaging with Embossed Tape and Reel

Qty.: 2000pcs/reel

