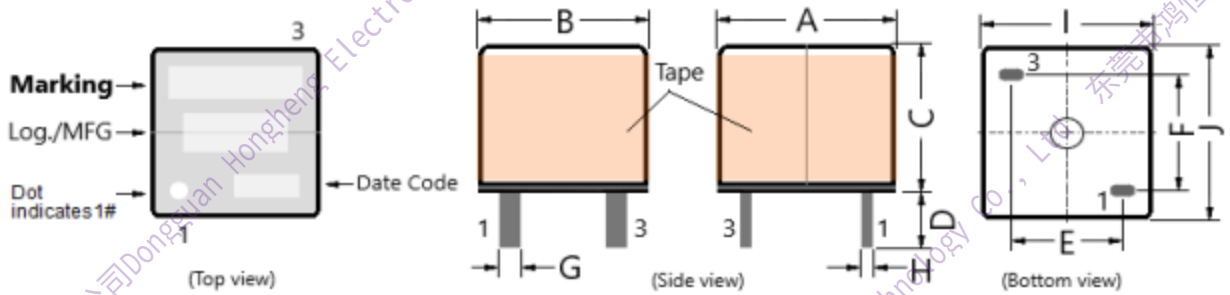
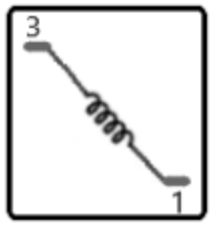
Features:

- Patent number(专利号)202423042496.7, 202411810896.X
- Full magnetic shielded type designed for the applications of very huge current (Isat 22~56A, Irms 31~53A) power inductors with very wide operation frequency,low DCR(0.76~4.3mohm), and mini-size(L*W*H=16.2*15.9*14.0).
- Very low power loss ferrite core used, wide operation frequency from 10kHz up to 500kHz.
- 250Vrms, one minutes isolation between Coils and Ferrite Core.
- Magnetic shielded structure, excellent resistance to electro-magnetic interference(EMI).
- Tube loading, long-distance and export overseas transportation are very safe and reliable.
- Operating temperature range: -40℃ to +155℃(Including coil temperature rise due to self-generated heat).
- Storage temperature range: -20℃ to +85℃.
- RoHS Compliant.

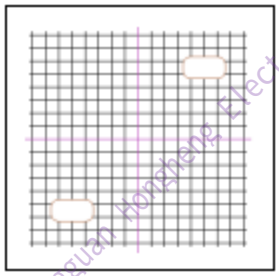
Appearance dimensions (mm/inch):



Inner connection (Bottom view):



Recommend land pattern for Pin-holes:



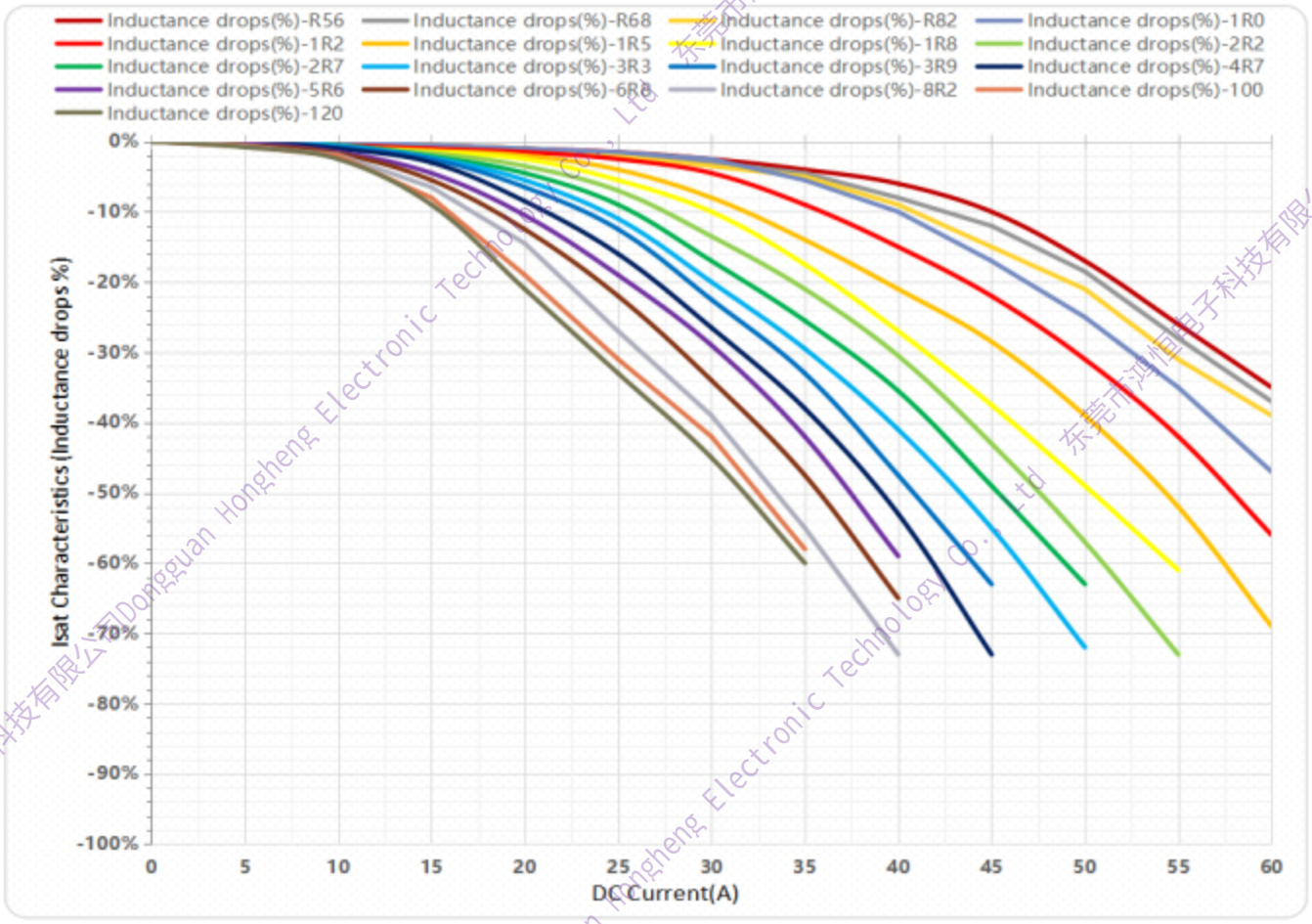
	mm	inch
A	16.2±0.3	0.638±0.012
B	15.9±0.3	0.626±0.012
C	14.3 Max.	0.563 Max.
D	3.5±0.3	0.138±0.012
E	10.0±0.5	0.394±0.020
F	11.0±0.5	0.433±0.020
G	2.0	0.079
H	0.8~1.5	0.031~0.059
I	15.9±0.3	0.626±0.012
J	16.2±0.3	0.638±0.012
N.W.: 12~15 g (0.423~0.529ounce)		

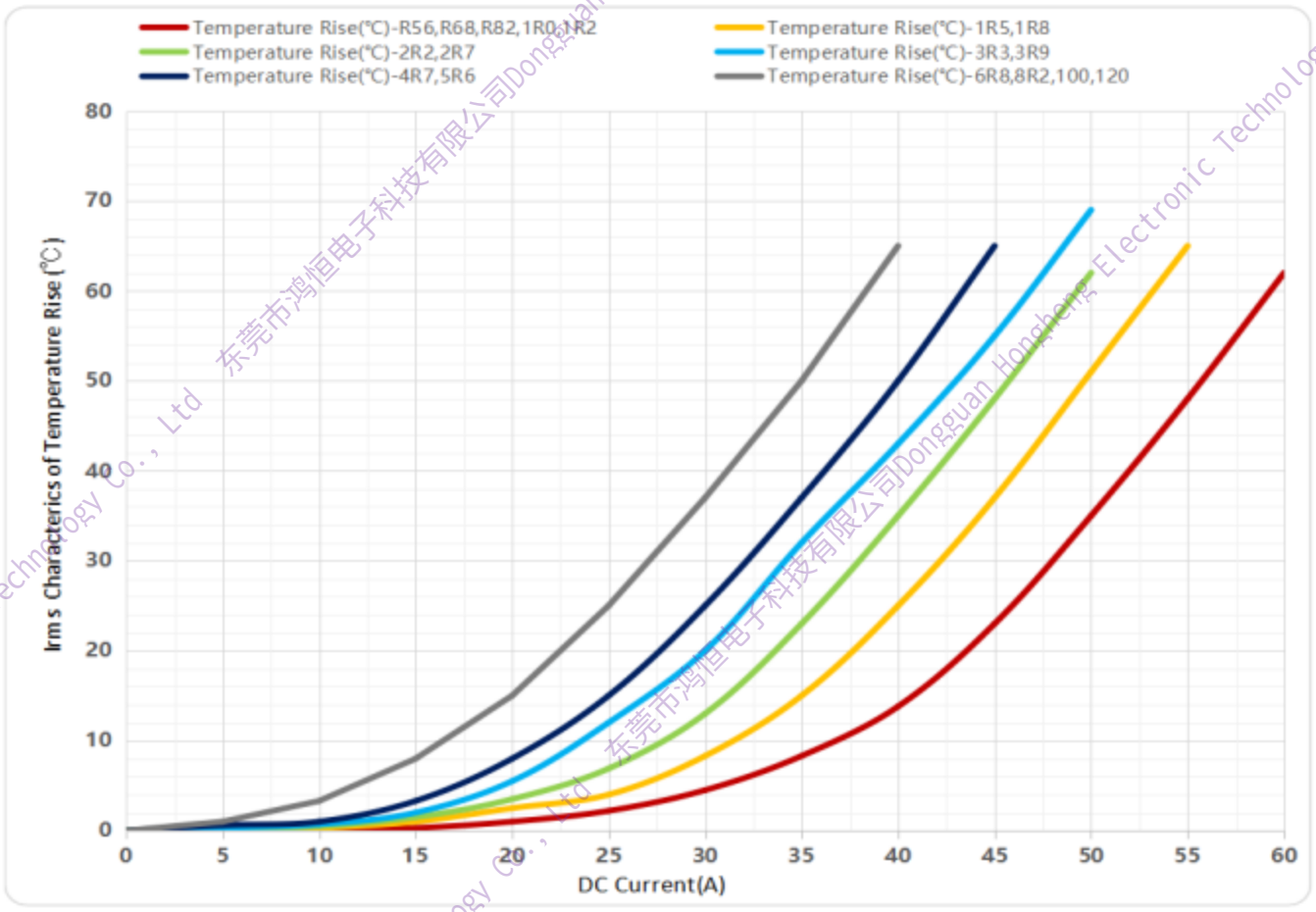
Electronic characteristics :

Cus. Part No. M-Code	Product P/N M-code	Inductance (μH) @ 200kHz/0.1Vrms	DCR (mΩ) @25℃	Isat (A) (Typ.)	Irms (A) (Typ.)	Marking	N.W.(g) (Typ.)
	HPI1615SF-R56M	0.56±20%	0.84Max.(0.76Typ.)	56.0	53.0	1615SF-R56	12.4
	HPI1615SF-R68M	0.68±20%	0.84Max.(0.76Typ.)	55.0	53.0	1615SF-R68	12.3
	HPI1615SF-R82M	0.82±20%	0.84Max.(0.76Typ.)	54.0	53.0	1615SF-R82	12.2
	HPI1615SF-1R0M	1.0±20%	0.84Max.(0.76Typ.)	52.0	53.0	1615SF-1R0	12.1
	HPI1615SF-1R2M	1.2±20%	0.84Max.(0.76Typ.)	48.0	53.0	1615SF-1R2	12.0
	HPI1615SF-1R5M	1.5±20%	1.62Max.(1.47Typ.)	46.0	45.0	1615SF-1R5	12.9
	HPI1615SF-1R8M	1.8±20%	1.62Max.(1.47Typ.)	43.0	45.0	1615SF-1R8	13.1
	HPI1615SF-2R2M	2.2±20%	1.85Max.(1.68Typ.)	39.0	41.0	1615SF-2R2	13.7
	HPI1615SF-2R7M	2.7±20%	1.85Max.(1.68Typ.)	37.0	41.0	1615SF-2R7	13.9
	HPI1615SF-3R3K	3.3±10%	2.09Max.(1.90Typ.)	36.0	37.0	1615SF-3R3	14.9
	HPI1615SF-3R9K	3.9±10%	2.09Max.(1.90Typ.)	34.0	37.0	1615SF-3R9	14.7
	HPI1615SF-4R7K	4.7±10%	2.96Max.(2.69Typ.)	32.0	35.0	1615SF-4R7	14.2
	HPI1615SF-5R6K	5.6±10%	2.96Max.(2.69Typ.)	29.0	35.0	1615SF-5R6	14.4
	HPI1615SF-6R8K	6.8±10%	4.73Max.(4.30Typ.)	26.0	31.0	1615SF-6R8	14.6
	HPI1615SF-8R2K	8.2±10%	4.73Max.(4.30Typ.)	24.0	31.0	1615SF-8R2	14.5
	HPI1615SF-100K	10.0±10%	4.73Max.(4.30Typ.)	23.0	31.0	1615SF-100	14.4
	HPI1615SF-120K	12.0±10%	4.73Max.(4.30Typ.)	22.0	31.0	1615SF-120	14.3

Remarks:
* All test data is referenced to 25℃ ambient temperature .
* Test equipment: VC4092B, TH2516B, HP4284/HP4284A ,HP4285 or equivalent .
* Isat: DC current at which the inductance drops 30% from its initial value without current.
* Irms: DC current that causes the temperature rise (△T=40℃) from 25℃.

Characteristics cure:





General characteristics:

No.	Item	Specification	Test method
1	Storage temperature range	-20℃ ~ 85℃	
2	Operation temperature range	-40℃ ~ 155℃ (Including coils's temperature rise)	
3	External appearance	No external defect can be found by visual inspection	
4	Solderability test	90%min. of the immersed areas should be covered by new solder(Sn-0.3Ag-0.5Cu)	Terminals are immersed in flux for 5 seconds, then dipped in melting solder at 245 ± 5℃ foe 5 ± 0.5 seconds. *Flux composition:25% rosin(JIS-K-5920)+75% ethanol (JIS-K-8101). *Pre-treatment : PCT:105℃/100%RH/1.22atm/*H.
5	Vibration test	Electronic characteristics shall be satisfied	Vibrating at the frequency varying uniformly from 10Hz to 2000Hz then return to 10Hz in 20 minutes at the acceleration of 5G for 4 hours in each of 3 mutually prependicular directions.
6	Heat resistance	Appearance : No damage Inductance change from the initial value: within ± 8 %	Temperature : 180 °C ±2°C Time : 1000 h (+48h , -0h) Then measured after exposure in the room condition for 24±2 hours.
7	Cold resistance		Temperature : - 60 °C ± 2°C Time : 1000 h (+48h , -0h) Then measured after exposure in the room condition for 24±2 hours.
8	Humidity		Temperature : 40 °C ± 2 °C Humidity : 90 %(RH) to 95 %(RH) Time : 1000 h (+48h , -0h) Then measured after exposure in the room condition for 24±2 hours.
9	Temperature cycle (Shock testing)		1 cycle : 1 step : - 40 °C ± 2 °C / 30 min ± 3 min 2 step : Ordinary temp. / 10 min to 15 min 3 step : + 155°C ± 2 °C / 30 min ± 3 min 4 step : Ordinary temp. / 10 min to 15 min Total of 10 cycles Then measured after exposure in the room condition for 24±2 hours.

Packing :

*Packing quantity 包装数量 :

Quantity / Tube 数量 / 导管	Quantity / Inner Box 数量 / 内盒	Quantity / Outside Carton 数量 / 外箱	N.W. / Outside Carton 净重 / 外箱	G.W. / Outside Carton 毛重 / 外箱
25pcs		(25x40)1000pcs	12~15kg	14.5~17.5kg
* Packing Quantity may vary depending on the order volume. 包装数量会因应订单量而异。				

* Label 标签:

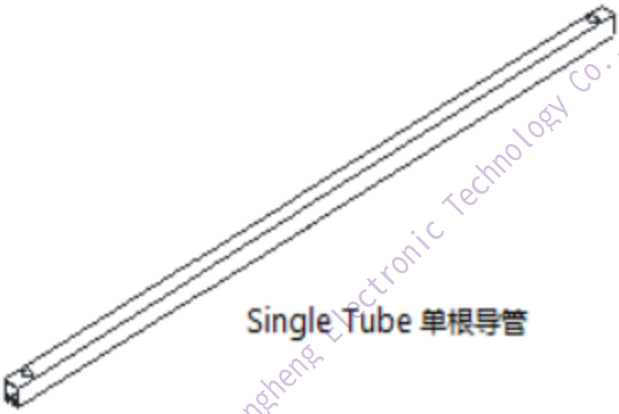
All the labels on the reel , inner box and outer box are the same, and the format and content of the label is shown as the right table. (Production Lot/ batch number refers to the week number(YYWW))

外箱、内箱、卷盘标签相同，标签的格式和内容如右表所示.

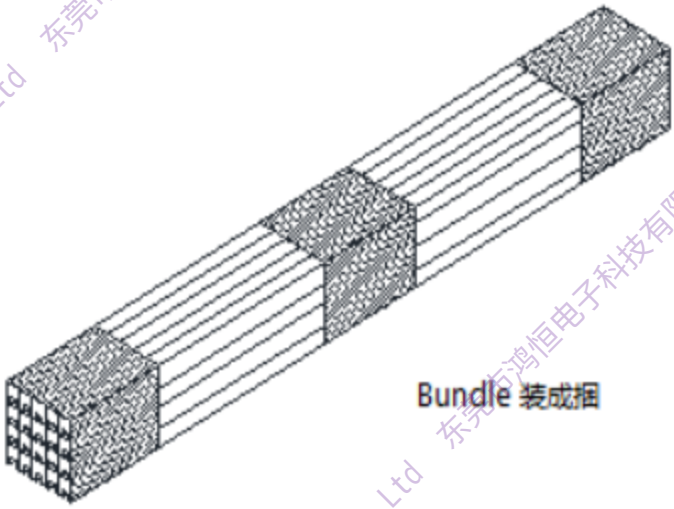
（生产批号，即 YYWW 周期号）

物料编码 Part No.,Code	
规格型号 Model, Description	
数　　量 Quantity	
批　　号 Lot No.	

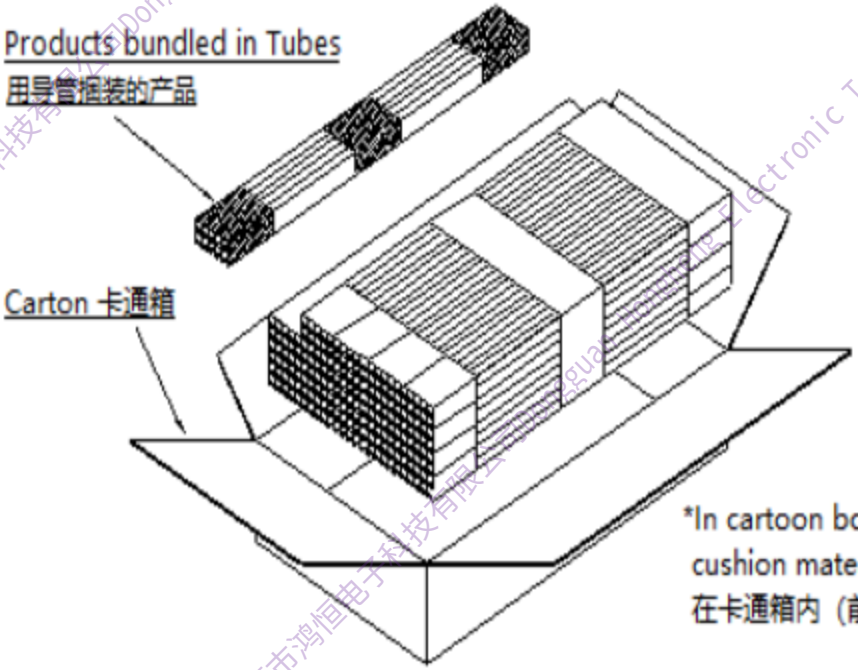
***Schematic diagram of Tube- packaging 导管包装示意图:**



Single Tube 单根导管



Bundle 装成捆



*In cartoon box (front, back, left, right, up and down), cushion material are placed in.
在卡通箱内（前后左右上下），垫放缓冲材

***Carton box dimension 卡通箱外形及尺寸(cm):**

L*W*H：52*20*10（cm）