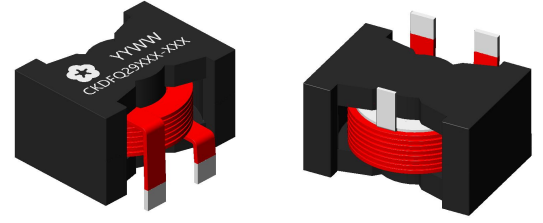




## High Current Power Inductor 组装大电流功率电感

### ● FEATURES 特性

1. Assemblage design, sturdy structure.  
组立式设计，结构坚固。
2. Magnetic shielded structure with low magnetic flux.  
磁屏蔽结构，磁漏小。
3. leakage low DC resistance, support high-currents.  
低直流电阻，提供大电流。



### ● APPLICATIONS 用途

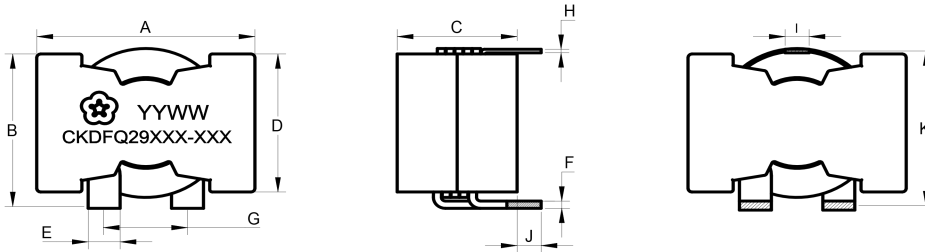
1. Speicherdrossel für hocheffiziente DC/DC.  
高效直流/直流储能扼流圈
2. Resonante Schaltnetzteile  
谐振开关电源

### ● PART NUMBERING SYSTEM 品名系统

CKDFQ      2915H      -      4.7uH      /M  
(1)                      (2)                      (3)                      (4)

- (1) Type 型号 (2) External Dimensions 外形尺寸 (3) Inductance 电感值  
(4) Inductance Tolerance 电感值公差 (M:±20%)

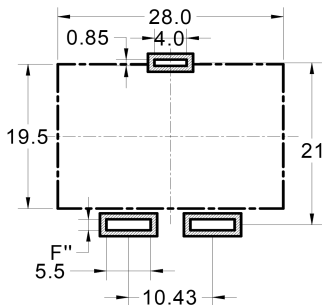
### ● SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)



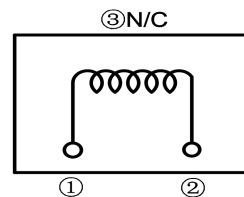
TYPE(型号)	F	F''
CKDFQ2915H	0.9±0.15	1.4
CKDFQ2915L	0.9±0.15	1.4
CKDFQ2918H	1.0~1.5uH	1.7±0.15
	3.3~33uH	0.8±0.15

TYPE(型号)	A	B	C	D	E	G	H	I	J	K
CKDFQ2915H	27.9Max	23.0Max	15.4Max	19.7Max	4.0±0.3	10.43±0.5	0.5±0.15	3.0Ref	3.0±0.5	21.0Ref
CKDFQ2915L	27.9Max	23.0Max	15.4Max	19.7Max	4.0±0.3	10.43±0.5	0.5±0.15	3.0Ref	3.0±0.5	21.0Ref
CKDFQ2918H	27.9Max	23.0Max	18.5Max	19.7Max	4.0±0.3	10.43±0.5	0.5±0.15	3.0Ref	3.0±0.5	21.0Ref

### ● REFERENCE HOLE PATTERN 参考焊盘尺寸 (Unit:mm)



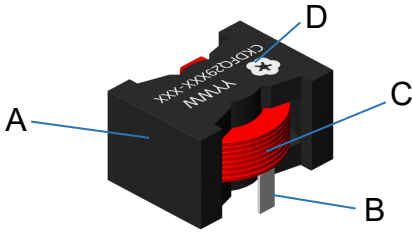
### ● SCHEMATIC 原理图



Version A0 / Issue date:2022-4-25



## ● STRUCTURE AND MATERIAL 结构与材料



Part	Components(组件)	Material(材料)
A	Core	Ferrite
B	Clip	Tin-plated copper wires
C	Wire	Polyurethane enameled copper wire
D	Marking	Ink

## ● TEMPERATURE RATING 额定温度

1. Operating temperature range (individual chip without packing):  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$   
工作温度范围:  $-40^{\circ}\text{C}$  ~  $+125^{\circ}\text{C}$
2. Storage temperature range (packaging conditions):  $-10^{\circ}\text{C}$ ~ $+40^{\circ}\text{C}$  and RH 70% (Max.)  
储存温度范围(包装条件):  $-10^{\circ}\text{C}$ ~ $+40^{\circ}\text{C}$ , 相对湿度70%(最大值)

## ● TEST AND MEASUREMENT PROCEDURES 测试项目与测试条件

### 1. Inductance 电感值(L)

Test equipment: HP4284A meter or equivalent

测试设备: HP4284A仪表或同等仪表

Inductance tested at 100kHz,0.1V

在100kHz, 0.1V下测试电感值

### 2. DC Resistance 直流电阻(DCR)

Test equipment: Keysight 34420A or equivalent

测试设备: Keysight 34420A或同等设备

### 3. Saturation Current 饱和电流(Isat)

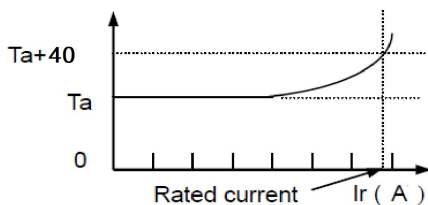
Test equipment: WK3260B LCRmeter/WK3265B or equivalent.

测试设备: WK3260B LCRmeter/WK3265B或同等设备。

### 4. Temperature rise current 温升电流(Irms)

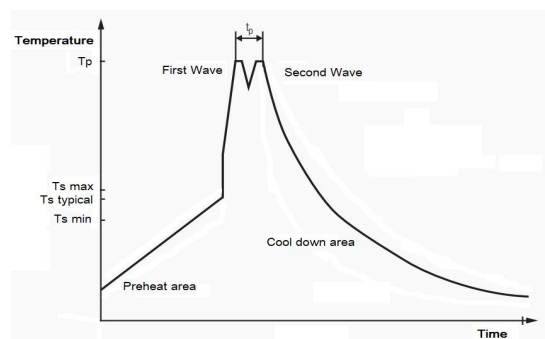
Irms is direct electric current as chip surface temperature rose just 40 against chip initial surface temperature ( $T_a$ )

电感加载直流电, 电感表面温度相比于电感初始表面温度升高40度



## ● Reflow Soldering 回流焊

Profile Feature		Pb-Free Assembly	Sn-Pb Assembly
Preheat Temperature Min	Ts min	100 °C	100 °C
Preheat Temperature Typical	Ts typical	120 °C	120 °C
Preheat Temperature Max	Ts max	130 °C	130 °C
Preheat Time ts from Ts min to Ts max	ts	70 seconds	70 seconds
Ramp-up Rate	$\Delta T$	150 °C max.	150 °C max.
Peak Temperature	Tp	250 °C - 260 °C	235 °C - 260 °C
Time of actual peak temperature	tp	max. 10 seconds max. 5 seconds each wave	max. 10 seconds max. 5 seconds each wave
Ramp-down Rate, Min		~ 2 K/ second	~ 2 K/ second
Ramp-down Rate, Typical		~ 3.5 K/ second	~ 3.5 K/ second



Ramp-down Rate, Max		~ 5 K/ second	~ 5 K/ second
Time 25 °C to 25 °C		4 minutes	4 minutes



## ● SPECIFICATION TABLE 规格特性表

### CKDFQ2915L Series

PART NUMBER 品名	Inductance 电感值	DC Resistance 直流电阻		Saturation Current (Isat)饱和电流	Rated Current (I <sub>rms</sub> )温升电流
Units	μH	mΩ		A	A
Tol	±20%	Typ	Max	Typ	Typ
CKDFQ2915L-1.5uH/MC	1.5	1.05	1.20	>100	36.2
CKDFQ2915L-2.2uH/MC	2.2	1.05	1.20	84.8	36.2
CKDFQ2915L-3.3uH/MC	3.3	1.05	1.20	57.0	36.2
CKDFQ2915L-4.7uH/MC	4.7	1.05	1.20	39.0	36.2
CKDFQ2915L-6.8uH/MC	6.8	1.05	1.20	27.8	36.2
CKDFQ2915L-10uH/MC	10.0	1.05	1.20	17.6	36.2
CKDFQ2915L-15uH/MC	15.0	1.05	1.20	11.0	36.2
CKDFQ2915L-22uH/MC	22.0	1.05	1.20	6.8	36.2
CKDFQ2915L-33uH/MC	33.0	1.05	1.20	3.3	36.2

### CKDFQ2915H Series

PART NUMBER 品名	Inductance 电感值	DC Resistance 直流电阻		Saturation Current (Isat)饱和电流	Rated Current (I <sub>rms</sub> )温升电流
Units	μH	mΩ		A	A
Tol	±20%	Typ	Max	Typ	Typ
CKDFQ2915H-2.2uH/MC	2.2	1.35	1.53	>100	32.8
CKDFQ2915H-3.3uH/MC	3.3	1.35	1.53	68.0	32.8
CKDFQ2915H-4.7uH/MC	4.7	1.35	1.53	50.0	32.8
CKDFQ2915H-6.8uH/MC	6.8	1.35	1.53	36.0	32.8
CKDFQ2915H-10uH/MC	10.0	1.35	1.53	23.0	32.8
CKDFQ2915H-15uH/MC	15.0	1.35	1.53	15.0	32.8
CKDFQ2915H-22uH/MC	22.0	1.35	1.53	9.6	32.8
CKDFQ2915H-33uH/MC	33.0	1.35	1.53	5.9	32.8



# 岑科科技(深圳)集团有限公司

SHENZHEN CENKER TECHNOLOGY GROUP CO., LTD.

## CKDFQ2918H Series

PART NUMBER 品名	Inductance 电感值	DC Resistance 直流电阻		Saturation Current (Isat)饱和电流	Rated Current (I <sub>rms</sub> )温升电流
Units	μH	mΩ		A	A
Tol	±20%	Typ	Max	Typ	Typ
CKDFQ2918H-1.0uH/MC	1.0	0.44	0.50	>100	54
CKDFQ2918H-1.5uH/MC	1.5	0.44	0.50	91.8	54
CKDFQ2918H-3.3uH/MC	3.3	2.15	2.58	94.0	30
CKDFQ2918H-4.7uH/MC	4.7	2.15	2.58	65.0	30
CKDFQ2918H-6.8uH/MC	6.8	2.15	2.58	48.0	30
CKDFQ2918H-10uH/MC	10.0	2.15	2.58	33.0	30
CKDFQ2918H-15uH/MC	15.0	2.15	2.58	24.0	30
CKDFQ2918H-22uH/MC	22.0	2.15	2.58	15.0	30
CKDFQ2918H-33uH/MC	33.0	2.15	2.58	10.5	30

### Note:

※1: All test data is reference to 25°C ambient.

※2: Test Condition: 100kHz, 0.1Vrms

※3: ISaturation current: the actual value of DC current when the inductance decrease 30% of its initial value.

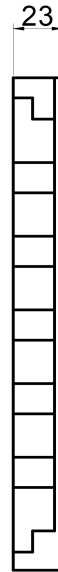
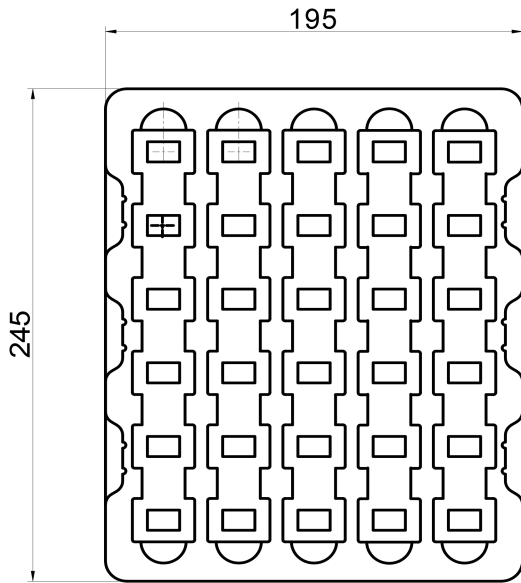
※4: Temperature rise current: the actual value of DC current when the temperature rise is ΔT40°C(Ta=25°C).

※5: Special remind: Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.



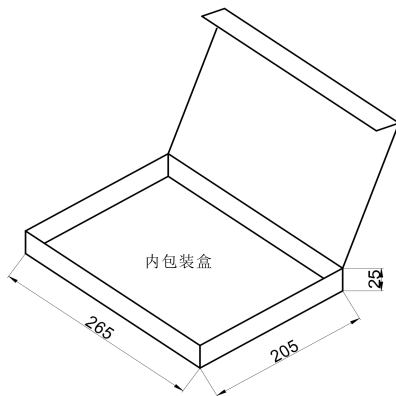
● PACKAGING SPECIFICATION 包装规格

1. Plastic Tray Dimensions (mm)

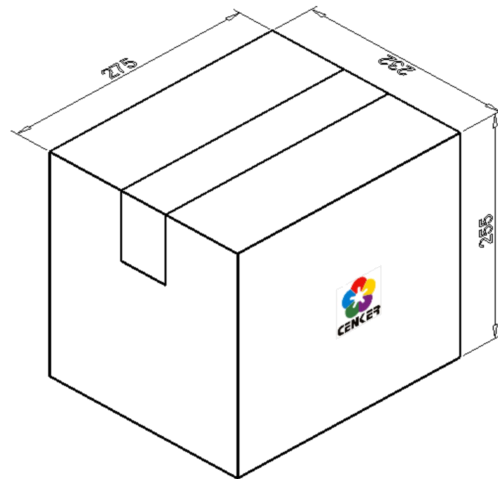


吸塑盒

Quantity: 30pcs/Tray



1 Tray in 1 Box=30pcs/Box



9 Box in 1 Carton=240pcs/Carton