

1. Part No. Expression

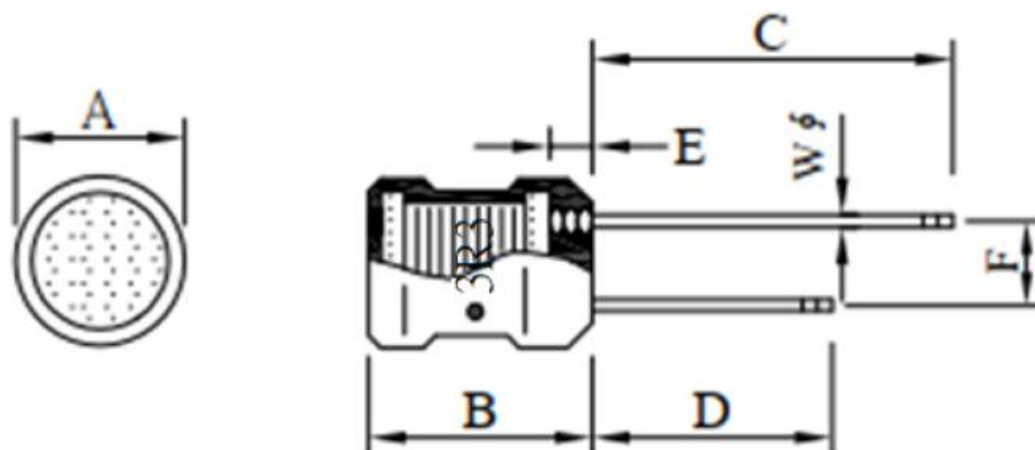
R C B 0 8 1 2 3 R 3 M Z F

(a) (b) (c) (d) (e) (f)

- | | |
|---------------------|--------------------|
| (a) Series Code | (d) Tolerance Code |
| (b) Dimension Code | (e) Special Code |
| (c) Inductance Code | (f) Packaging Code |

2. Configuration & Dimensions (Unit: mm)

Packaging G

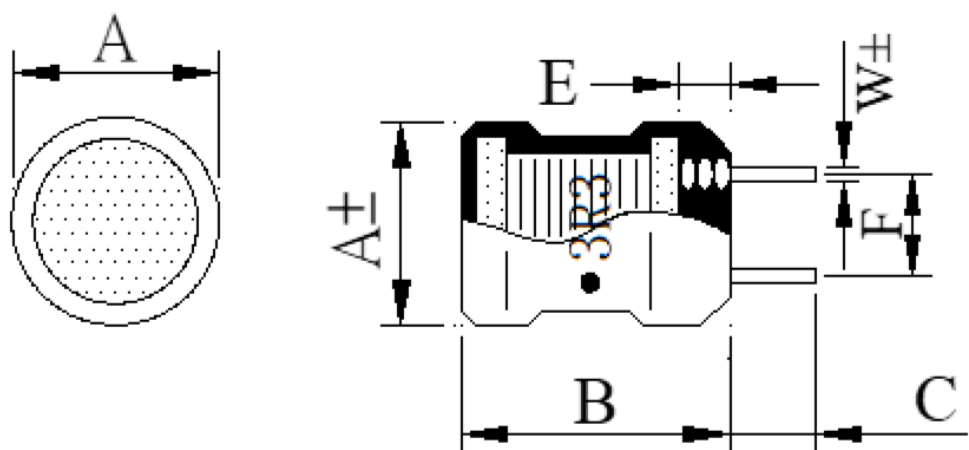


Note: Marking: “●” Start + Inductance Code

A	B	C	D	E	F	W
8.70±0.50	12.00±1.00	25.00±5.00	18.00±5.00	2.50 Max	5.00±0.80	0.65±0.10

NOTE: Specifications subject to change without notice. Please check our website for latest information.

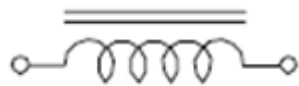
Packaging F



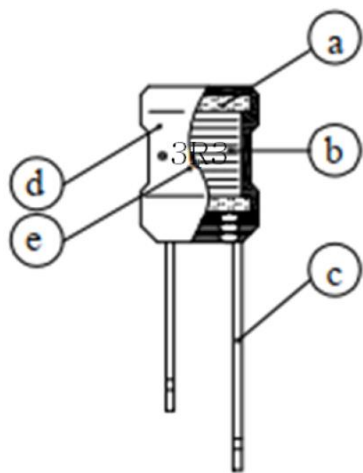
Note: Marking: “●” Start + Inductance Code

A	B	C	E	F	W
8.70±0.50	12.00±1.00	3.00±1.00	2.50 Max	5.00±0.50	0.65±0.10

3. Schematic



4. Material List



No.	Description	Specification
a	Core	Ferrite Core DR2W8*10 or equivalent
b	Wire	Enamelled Copper Wire UEWN/U (155°C) xUEW/155 or equivalent
c	Lead	Tinned Copper Wire
d	Tube	Shrinkable Tube Black or equivalent
e	Ink	White

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5. General Specifications

- (a) Operating Temp.: - 40°C to + 125°C (including self-temperature rise)
- (b) Storage Temp.: - 40°C to + 125°C (on board)
- (c) Heat Rated Current (Irms) will cause the coil temperature rise ΔT of 20°C Max.
- (d) Storage Condition (Component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity: Less than 60% RH

6. Electrical Characteristics

Part Number	Inductance (μ H) @0A	Q Min	Test Frequency	SRF (MHz) Min	DCR (Ω) Max	IDC (A) Max
RCB08123R3MZ□	3.3 \pm 20%	9	1.0V/7.96M	70.0	0.027	3.60
RCB08124R7MZ□	4.7 \pm 20%	9	1.0V/7.96M	50.0	0.033	3.20
RCB08126R8MZ□	6.8 \pm 20%	9	1.0V/7.96M	30.0	0.039	3.00
RCB0812100KZ□	10.0 \pm 10%	10	1.0V/2.52M	20.0	0.048	2.70
RCB0812120KZ□	12.0 \pm 10%	10	1.0V/2.52M	15.0	0.055	2.50
RCB0812150KZ□	15.0 \pm 10%	10	1.0V/2.52M	10.0	0.060	2.40
RCB0812180KZ□	18.0 \pm 10%	10	1.0V/2.52M	9.50	0.065	2.30
RCB0812220KZ□	22.0 \pm 10%	15	1.0V/2.52M	9.00	0.090	1.90
RCB0812270KZ□	27.0 \pm 10%	15	1.0V/2.52M	8.50	0.110	1.80
RCB0812330KZ□	33.0 \pm 10%	15	1.0V/2.52M	8.00	0.120	1.70
RCB0812390KZ□	39.0 \pm 10%	15	1.0V/2.52M	7.00	0.130	1.60
RCB0812470KZ□	47.0 \pm 10%	15	1.0V/2.52M	6.00	0.140	1.50
RCB0812560KZ□	56.0 \pm 10%	15	1.0V/2.52M	5.00	0.200	1.30
RCB0812680KZ□	68.0 \pm 10%	15	1.0V/2.52M	4.50	0.210	1.20
RCB0812820KZ□	82.0 \pm 10%	15	1.0V/2.52M	4.00	0.230	1.10
RCB0812101KZ□	100 \pm 10%	20	1.0V/0.796M	3.50	0.280	1.00
RCB0812121KZ□	120 \pm 10%	20	1.0V/0.796M	3.00	0.320	0.900

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Part Number	Inductance (μ H) @0A	Q Min	Test Frequency	SRF (MHz) Min	DCR (Ω) Max	IDC (A) Max
RCB0812151KZ□	150 \pm 10%	20	1.0V/0.796M	2.80	0.370	0.800
RCB0812181KZ□	180 \pm 10%	20	1.0V/0.796M	2.60	0.540	0.750
RCB0812221KZ□	220 \pm 10%	20	1.0V/0.796M	2.40	0.600	0.700
RCB0812271KZ□	270 \pm 10%	20	1.0V/0.796M	2.20	0.680	0.650
RCB0812331KZ□	330 \pm 10%	20	1.0V/0.796M	2.00	0.760	0.600
RCB0812391KZ□	390 \pm 10%	20	1.0V/0.796M	1.90	0.850	0.550
RCB0812471KZ□	470 \pm 10%	20	1.0V/0.796M	1.80	1.30	0.500
RCB0812561KZ□	560 \pm 10%	20	1.0V/0.796M	1.70	1.40	0.450
RCB0812681KZ□	680 \pm 10%	20	1.0V/0.796M	1.60	1.60	0.400
RCB0812821KZ□	820 \pm 10%	20	1.0V/0.796M	1.5	1.80	0.350
RCB0812102KZ□	1000 \pm 10%	20	1.0V/0.252M	1.3	2.10	0.300

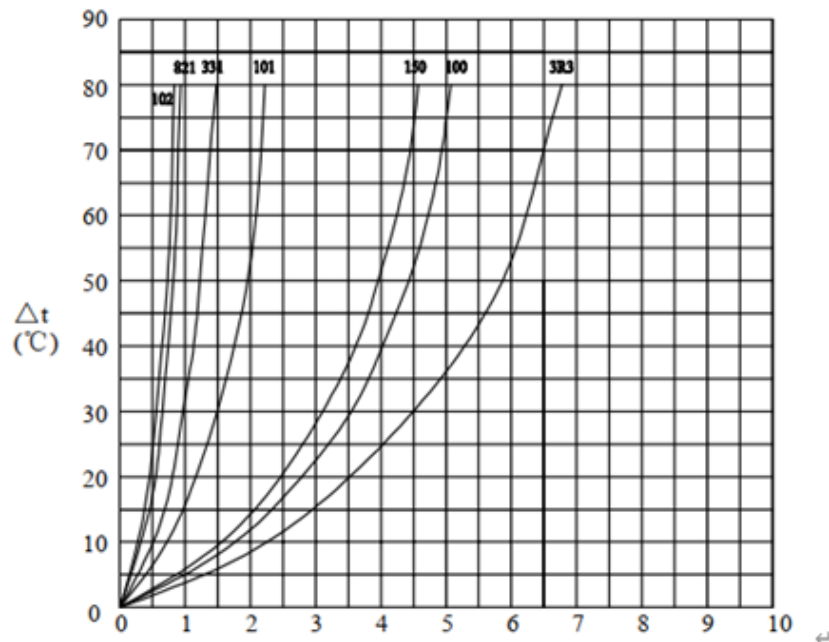
Note:

□ Packaging: F or G

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7. Characteristics Curve

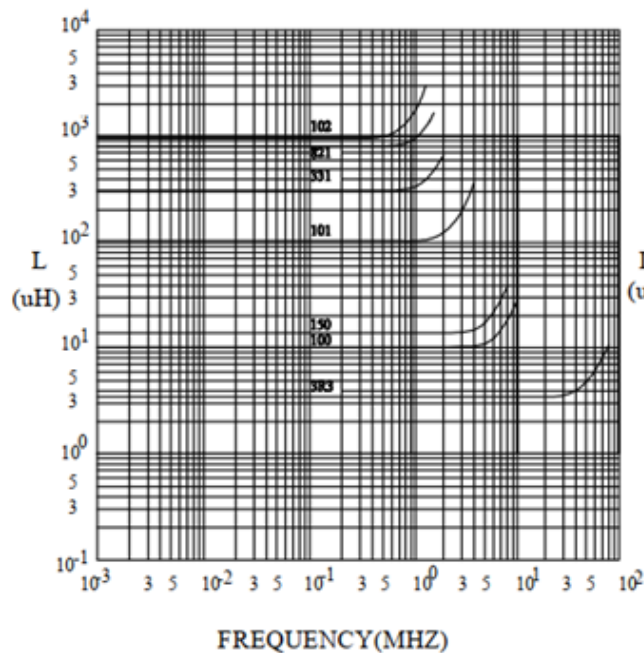
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



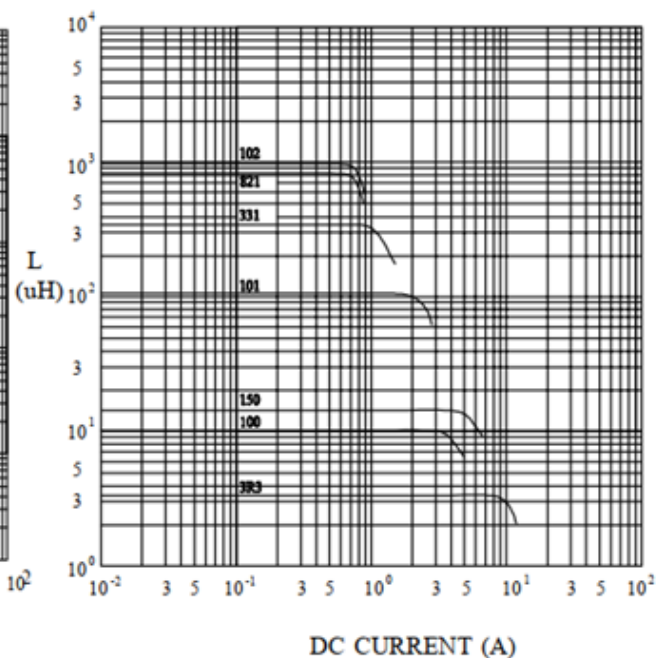
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@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



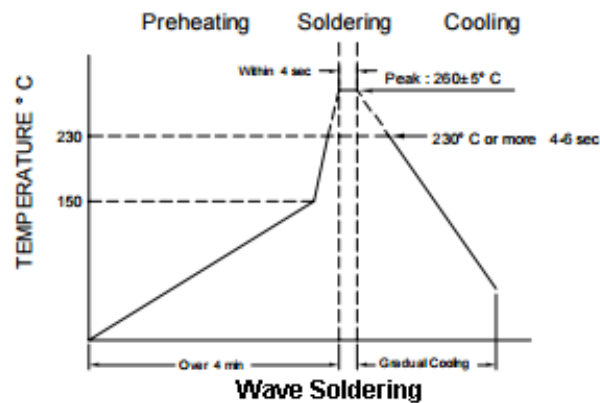
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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8. Soldering Specification

Mildly activated rosin fluxes are preferred. The minimum amount of solder can lead to damage from the stresses caused by the difference in coefficients of expansion between solder, chip and substrate. Our terminations are suitable for wave soldering.



9. Packaging Information

9-1 Packaging F (Unit: PCS)

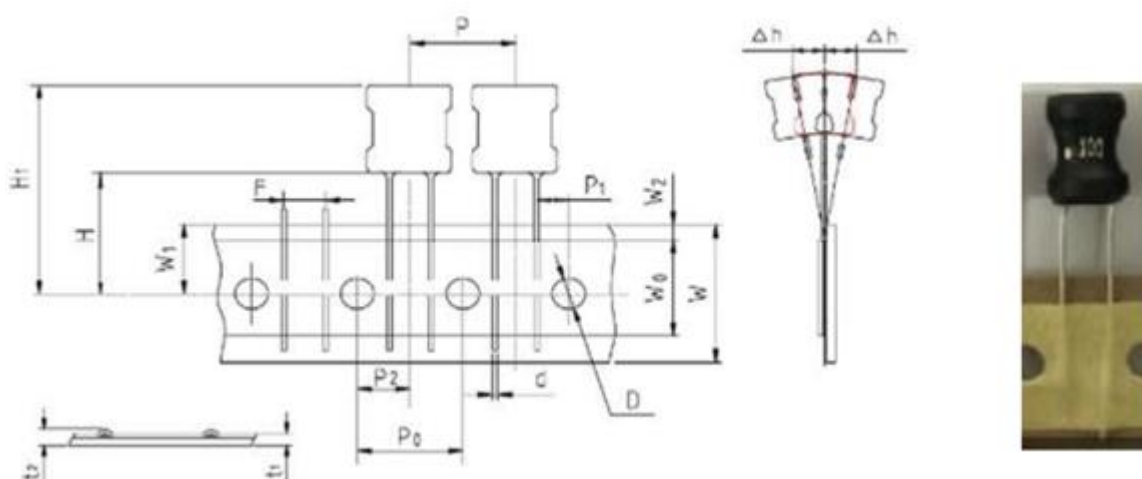
PACKAGE	INNER PACKAGE	OUTER PACKAGE
TRAY	150	3000



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9-2 Packaging G (Unit: PCS)

PACKAGE	TAPE PACKAGE	INNER PACKAGE	OUTER PACKAGE
TAPE	800	800	4800



SYMBOL	DIMENSIONS(mm)	SYMBOL	DIMENSIONS(mm)
H 1	39.0max	W 1	9.0±0.3
H	18.0±1.0	W 2	2.5 max
P	12.7±0.9	D	ø4.0±0.2
P 0	12.7±0.15	t ₁	0.7±0.2
P 1	3.85±0.6	t ₂	2.0 max
P 2	6.35±1	Δh	1.0max
F	5.0±0.5	d	ø0.8±0.1
W	18.0±0.5	W 0	12.0±1.0

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Application Notice

1. Storage Conditions

To maintain the solderability of terminal electrodes:

- (a) Recommended products should be used within 12 months from the time of delivery.
- (b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation

- (a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- (b) Vacuum pick up is strongly recommended for individual components.
- (c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

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