Radial-leaded Inductor – *RCS1010 Series*

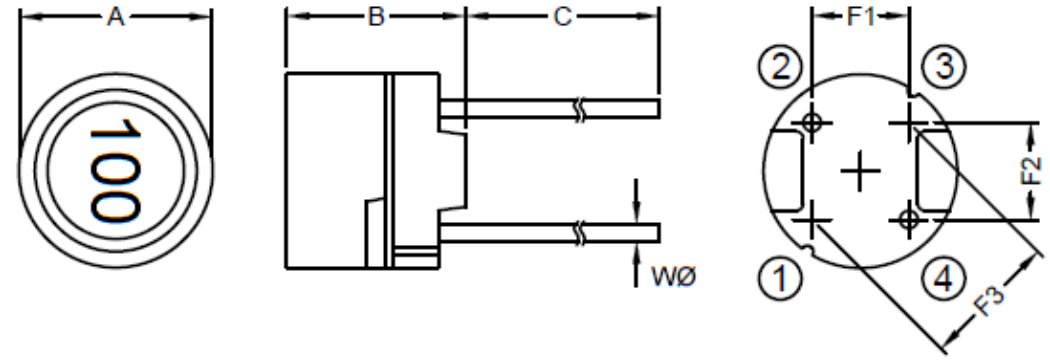
1. Part No. Expression

R C S 1 0 1 0 1 0 0 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

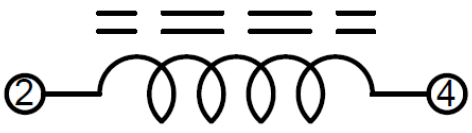
2. Configuration & Dimensions (Unit: mm)



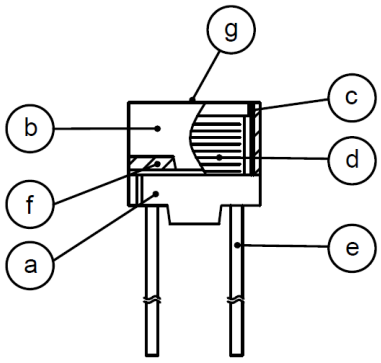
Note: Marking: Inductance Code

A	B	C	F1	F2	F3	W
10.0±0.5	10.0±1.0	15.0±3.0	4.0±0.5	5.0±0.5	6.4±0.5	0.8±0.1

3. Schematic



4. Material List



(a) DR Core
(b) RI Core
(c) Sleeve
(d) Wire
(e) Lead
(f) Adhesive
(g) Ink

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 40°C Max.
(d) Saturation Current (Isat) will cause inductance L0 to drop 10% Max.
(e) Storage Condition (Component in its packaging)
    i) Temperature: Less than 40°C
    ii) Humidity: Less than 60% RH

6. Electrical Characteristics

Part Number	Inductance (μH) @0A	Test Frequency	RDC (Ω) Max	IDC (A) Max
RCS1010100MZF	10	1V/2.52MHz	0.023	3.51
RCS1010120MZF	12	1V/2.52MHz	0.024	3.24
RCS1010150MZF	15	1V/2.52MHz	0.036	2.88
RCS1010180MZF	18	1V/2.52MHz	0.039	2.61
RCS1010220MZF	22	1V/2.52MHz	0.042	2.34
RCS1010270MZF	27	1V/2.52MHz	0.045	2.16
RCS1010330MZF	33	1V/2.52MHz	0.057	1.89
RCS1010390MZF	39	1V/2.52MHz	0.076	1.80
RCS1010470MZF	47	1V/2.52MHz	0.100	1.62
RCS1010560KZF	56	1V/2.52MHz	0.110	1.44
RCS1010680KZF	68	1V/2.52MHz	0.150	1.35
RCS1010820KZF	82	1V/2.52MHz	0.160	1.26
RCS1010101KZF	100	1V/1KHz	0.190	1.08
RCS1010121KZF	120	1V/1KHz	0.210	0.99
RCS1010151KZF	150	1V/1KHz	0.230	0.90
RCS1010181KZF	180	1V/1KHz	0.260	0.82
RCS1010221KZF	220	1V/1KHz	0.290	0.74
RCS1010271KZF	270	1V/1KHz	0.360	0.67
RCS1010331KZF	330	1V/1KHz	0.510	0.61
RCS1010391KZF	390	1V/1KHz	0.690	0.55
RCS1010471KZF	470	1V/1KHz	0.980	0.51
RCS1010561KZF	560	1V/1KHz	1.100	0.46
RCS1010681KZF	680	1V/1KHz	1.200	0.42
RCS1010821KZF	820	1V/1KHz	1.300	0.38
RCS1010102KZF	1000	1V/1KHz	1.500	0.35

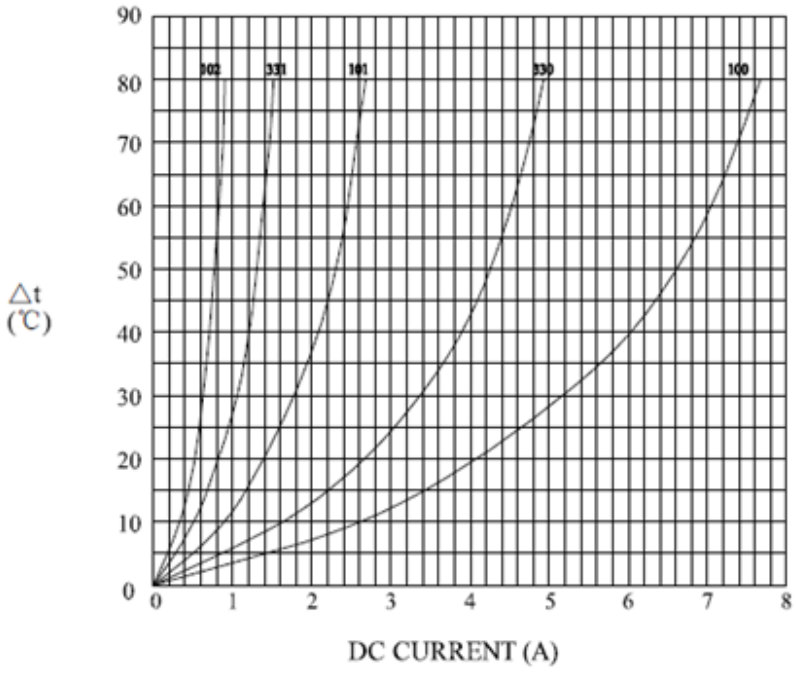
Note:

Tolerance code: K=±10%, M=±20%

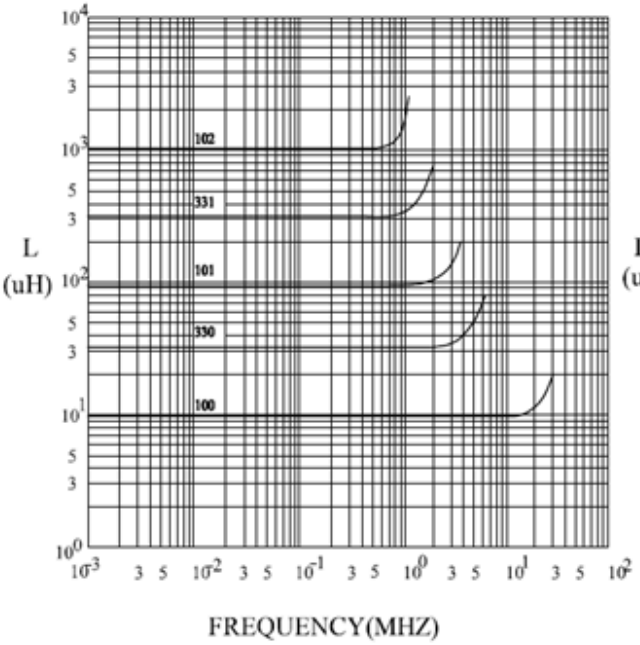
NOTE: Specifications subject to change without notice. Please check our website for latest information.

7. Characteristics Curves

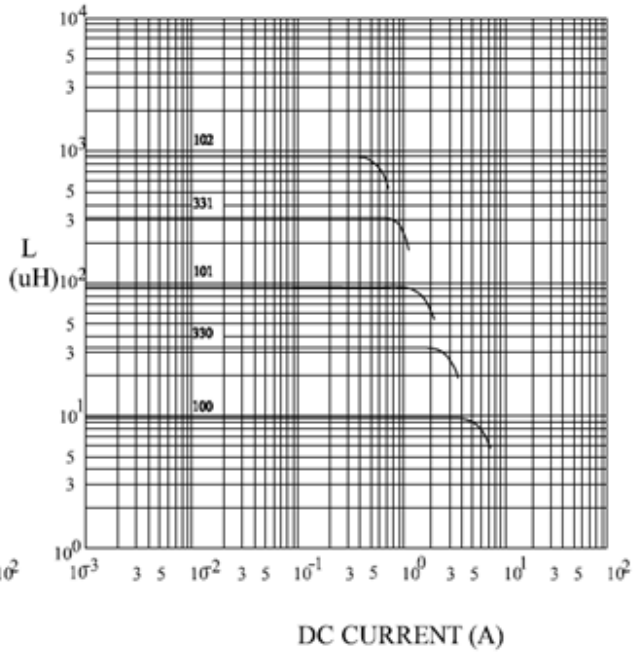
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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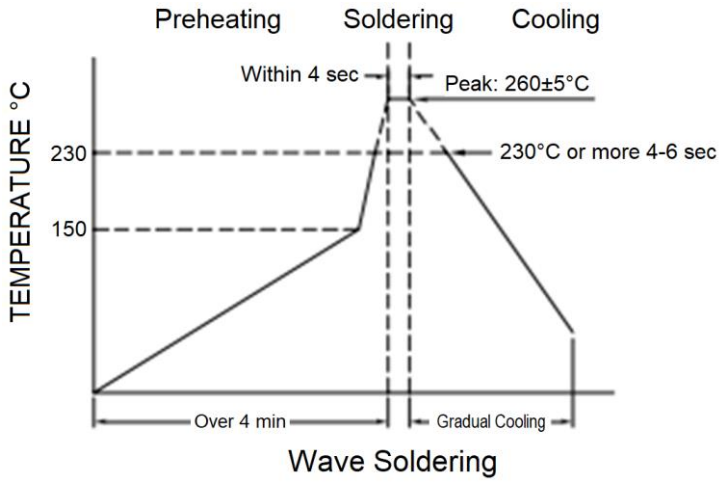
8. Soldering Specification

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 (Unit: Pcs)

Tray	Inner Box	Outer Carton
120	240	2,400

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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