

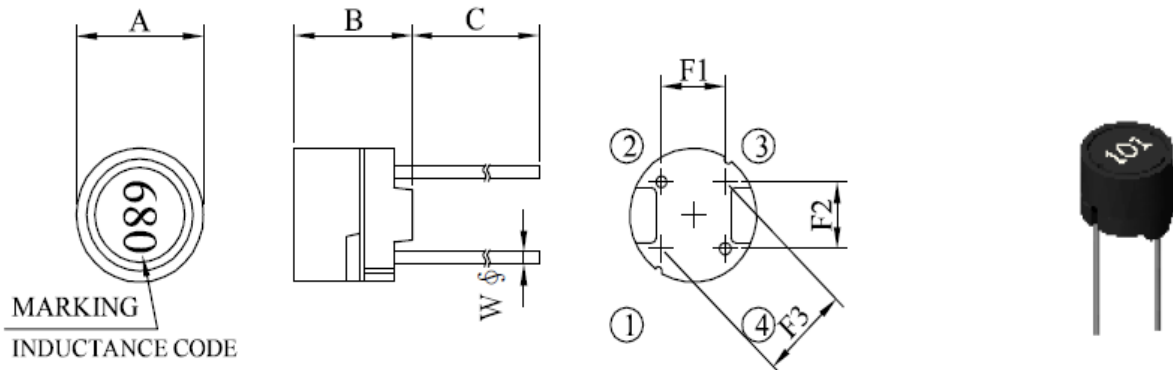
1. Part No. Expression

RCS1010100MZF

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

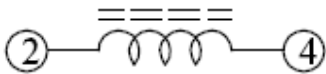
- | | |
|---------------------|--------------------|
| (a) Series Code | (d) Tolerance Code |
| (b) Dimension Code | (e) Special Code |
| (c) Inductance Code | (f) Packaging Code |

2. Configuration & Dimensions: (Unit:- mm)



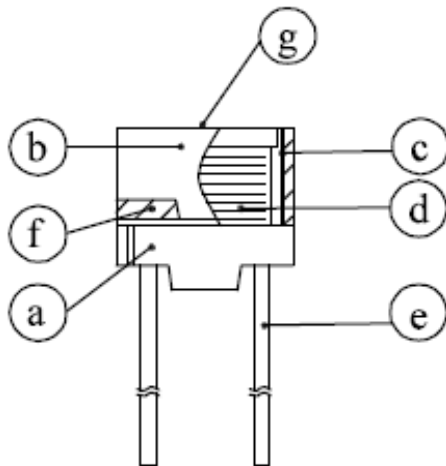
| A | B | C | F1 | F2 | F3 | Wφ |
|----------|----------|----------|---------|---------|---------|---------|
| 10.0±0.5 | 10.0±1.0 | 15.0±3.0 | 4.0±0.5 | 5.0±0.5 | 6.4±0.5 | 0.8±0.1 |

3. Schematic



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

4. Material List



- a) DR Ferrite Core
- b) RI Ferrite 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.
- (c) Irms: Based on temperature rise (ΔT : 40°C Max).
- (d) Isat: Based on inductance change ($\Delta L/L_0$: 10% Max).
- (e) Storage condition (component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity: 60% RH

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6. Electrical Characteristics

| Part Number | Inductance @ 0A (μ H) | Test Frequency (Hz) | DCR (Ω) Max | IDC (A) Max |
|---------------|-------------------------------|---------------------------|----------------------------|-------------------|
| RCS1010100MZF | 10 \pm 20% | 1V/2.52M | 0.023 | 3.51 |
| RCS1010120MZF | 12 \pm 20% | 1V/2.52M | 0.024 | 3.24 |
| RCS1010150MZF | 15 \pm 20% | 1V/2.52M | 0.036 | 2.88 |
| RCS1010180MZF | 18 \pm 20% | 1V/2.52M | 0.039 | 2.61 |
| RCS1010220MZF | 22 \pm 20% | 1V/2.52M | 0.042 | 2.34 |
| RCS1010270MZF | 27 \pm 20% | 1V/2.52M | 0.045 | 2.16 |
| RCS1010330MZF | 33 \pm 20% | 1V/2.52M | 0.057 | 1.89 |
| RCS1010390MZF | 39 \pm 20% | 1V/2.52M | 0.076 | 1.80 |
| RCS1010470MZF | 47 \pm 20% | 1V/2.52M | 0.100 | 1.62 |
| RCS1010560KZF | 56 \pm 10% | 1V/2.52M | 0.110 | 1.44 |
| RCS1010680KZF | 68 \pm 10% | 1V/2.52M | 0.150 | 1.35 |
| RCS1010820KZF | 82 \pm 10% | 1V/2.52M | 0.160 | 1.26 |
| RCS1010101KZF | 100 \pm 10% | 1V/1K | 0.190 | 1.08 |
| RCS1010121KZF | 120 \pm 10% | 1V/1K | 0.210 | 0.99 |
| RCS1010151KZF | 150 \pm 10% | 1V/1K | 0.230 | 0.90 |
| RCS1010181KZF | 180 \pm 10% | 1V/1K | 0.260 | 0.82 |
| RCS1010221KZF | 220 \pm 10% | 1V/1K | 0.290 | 0.74 |
| RCS1010271KZF | 270 \pm 10% | 1V/1K | 0.360 | 0.67 |
| RCS1010331KZF | 330 \pm 10% | 1V/1K | 0.510 | 0.61 |
| RCS1010391KZF | 390 \pm 10% | 1V/1K | 0.690 | 0.55 |
| RCS1010471KZF | 470 \pm 10% | 1V/1K | 0.980 | 0.51 |
| RCS1010561KZF | 560 \pm 10% | 1V/1K | 1.100 | 0.46 |
| RCS1010681KZF | 680 \pm 10% | 1V/1K | 1.200 | 0.42 |
| RCS1010821KZF | 820 \pm 10% | 1V/1K | 1.300 | 0.38 |
| RCS1010102KZF | 1000 \pm 10% | 1V/1K | 1.500 | 0.35 |

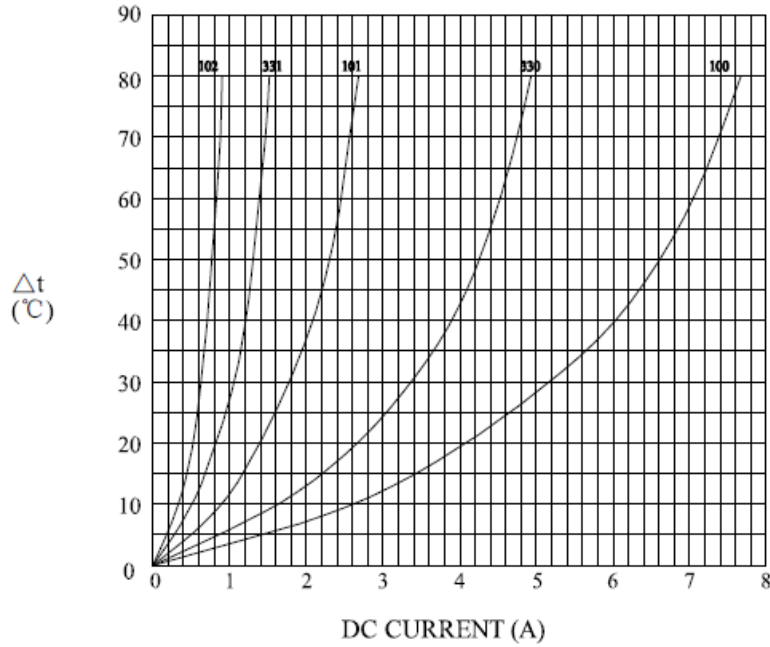
Tolerance: K= \pm 10%; M= \pm 20%

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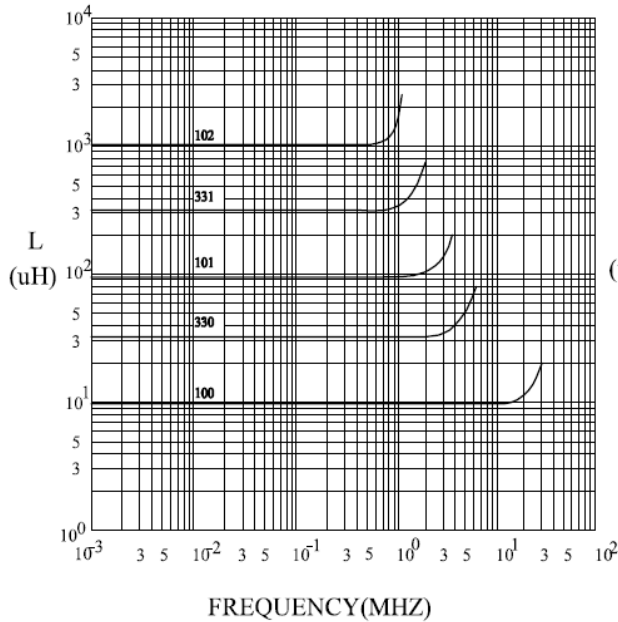


7. Characteristic Curves

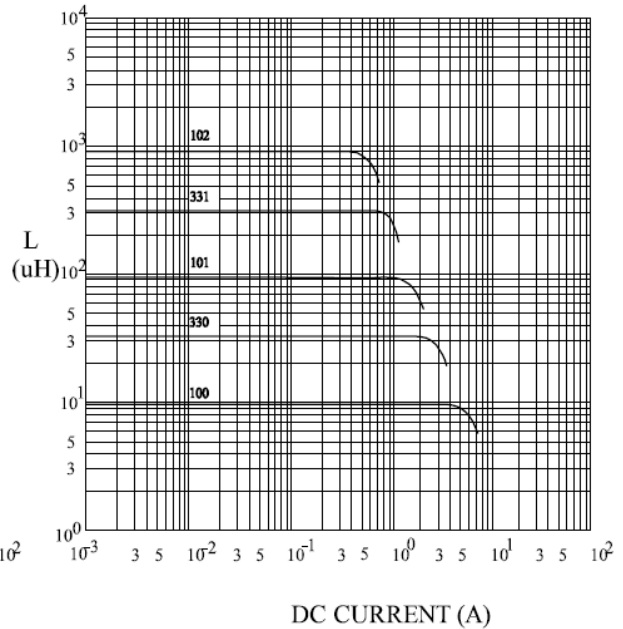
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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8. Soldering and Mounting

Recommended temperature profiles for re-flow soldering is in Figure 1.

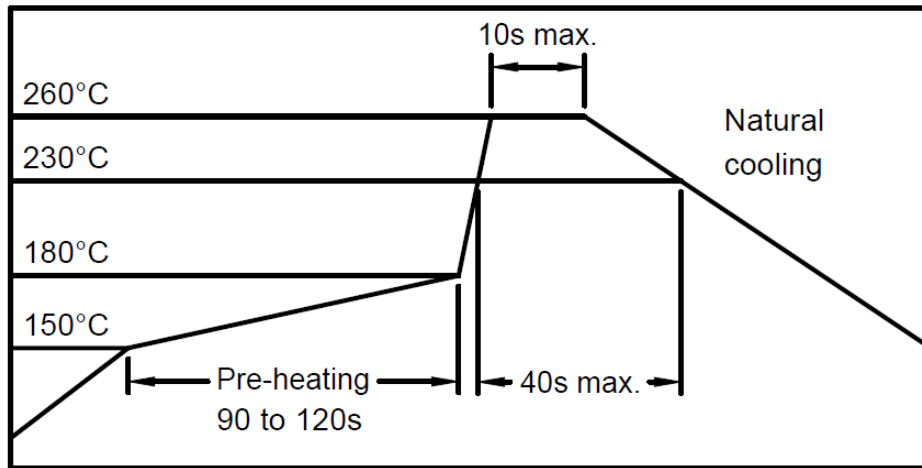


Figure 1: Re-flow Soldering Conditions

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9. Packaging Information

| Code | Tray | Inner Box | Outer Carton |
|------|---------|-----------|--------------|
| F | 120 Pcs | 240 Pcs | 2400 Pcs |

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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