

### 1. PART NO. EXPRESSION :

SDB1205101MZ F  
 (a) (b) (c) (d)(e)(f)

(a) Series code

(b) Dimension code

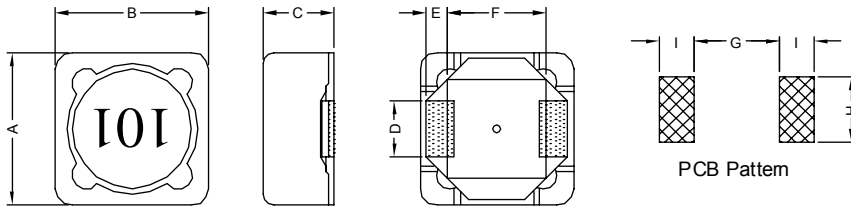
(c) Inductance code : 101 = 100.0uH

(d) Tolerance code : M = ±20%, Y = ±25%

(e) Z : Standard part

(f) F : RoHS Compliant

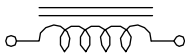
### 2. CONFIGURATION & DIMENSIONS :



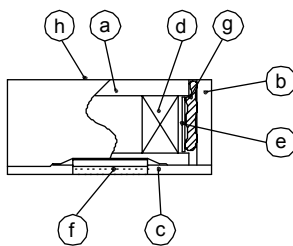
Unit:m/m

| A        | B        | C         | D       | E       | F       | G        | H        | I        |
|----------|----------|-----------|---------|---------|---------|----------|----------|----------|
| 12.5±0.3 | 12.5±0.3 | 6.00 Max. | 5.0±0.2 | 2.2±0.2 | 7.6±0.2 | 7.0 Ref. | 5.4 Ref. | 2.8 Ref. |

### 3. SCHEMATIC :



### 4. MATERIALS :



- (a) DR Core
- (b) RI Core
- (c) Base
- (d) Wire
- (e) Tape
- (f) Terminal
- (g) Adhesive
- (h) Ink

### 5. GENERAL SPECIFICATION :

- a) Temp. rise : 40° C Max. at 1ms
- b) ΔL/L0A : 20% Max. at Isat
- c) Operating temp. : -40° C to +125° C
- d) Storage condition (component in its packaging)
  - i) Temperature : -10 to 40° C
  - ii) Humidity : 60%
- e) Resistance to solder heat : 260° C.10 secs



**RoHS Compliant**

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## 6. ELECTRICAL CHARACTERISTICS :

| Part No.      | Inductance<br>( $\mu$ H) | Test<br>Frequency<br>( Hz ) | RDC<br>( m $\Omega$ )<br>Max. | I <sub>rms</sub><br>( A )<br>Max. | I <sub>sat</sub><br>( A )<br>Max. |
|---------------|--------------------------|-----------------------------|-------------------------------|-----------------------------------|-----------------------------------|
| SDB12051R5YZF | 1.5 $\pm$ 25%            | 1V / 100K                   | 12                            | 7.50                              | 8.00                              |
| SDB12052R2YZF | 2.2 $\pm$ 25%            | 1V / 100K                   | 14                            | 7.10                              | 7.00                              |
| SDB12053R1YZF | 3.1 $\pm$ 25%            | 1V / 100K                   | 17                            | 6.60                              | 6.00                              |
| SDB12054R4YZF | 4.4 $\pm$ 25%            | 1V / 100K                   | 20                            | 6.30                              | 5.00                              |
| SDB12055R2YZF | 5.2 $\pm$ 25%            | 1V / 100K                   | 21                            | 5.90                              | 4.40                              |
| SDB12057R5YZF | 7.5 $\pm$ 25%            | 1V / 100K                   | 24                            | 5.30                              | 4.20                              |
| SDB1205100MZF | 10.0 $\pm$ 20%           | 1V / 1K                     | 25                            | 5.10                              | 4.00                              |
| SDB1205120MZF | 12.0 $\pm$ 20%           | 1V / 1K                     | 27                            | 4.80                              | 3.50                              |
| SDB1205150MZF | 15.0 $\pm$ 20%           | 1V / 1K                     | 30                            | 4.40                              | 3.30                              |
| SDB1205180MZF | 18.0 $\pm$ 20%           | 1V / 1K                     | 34                            | 4.10                              | 3.00                              |
| SDB1205220MZF | 22.0 $\pm$ 20%           | 1V / 1K                     | 36                            | 4.00                              | 2.80                              |
| SDB1205270MZF | 27.0 $\pm$ 20%           | 1V / 1K                     | 51                            | 3.50                              | 2.30                              |
| SDB1205330MZF | 33.0 $\pm$ 20%           | 1V / 1K                     | 57                            | 3.30                              | 2.10                              |
| SDB1205390MZF | 39.0 $\pm$ 20%           | 1V / 1K                     | 68                            | 2.90                              | 2.00                              |
| SDB1205470MZF | 47.0 $\pm$ 20%           | 1V / 1K                     | 75                            | 2.70                              | 1.80                              |
| SDB1205560MZF | 56.0 $\pm$ 20%           | 1V / 1K                     | 110                           | 2.40                              | 1.70                              |
| SDB1205680MZF | 68.0 $\pm$ 20%           | 1V / 1K                     | 120                           | 2.20                              | 1.50                              |
| SDB1205820MZF | 82.0 $\pm$ 20%           | 1V / 1K                     | 140                           | 2.10                              | 1.40                              |
| SDB1205101MZF | 100.0 $\pm$ 20%          | 1V / 1K                     | 160                           | 2.00                              | 1.30                              |
| SDB1205121MZF | 120.0 $\pm$ 20%          | 1V / 1K                     | 170                           | 1.80                              | 1.10                              |
| SDB1205151MZF | 150.0 $\pm$ 20%          | 1V / 1K                     | 230                           | 1.70                              | 1.00                              |
| SDB1205181MZF | 180.0 $\pm$ 20%          | 1V / 1K                     | 290                           | 1.40                              | 0.90                              |
| SDB1205221MZF | 220.0 $\pm$ 20%          | 1V / 1K                     | 400                           | 1.30                              | 0.80                              |
| SDB1205271MZF | 270.0 $\pm$ 20%          | 1V / 1K                     | 460                           | 1.20                              | 0.75                              |
| SDB1205331MZF | 330.0 $\pm$ 20%          | 1V / 1K                     | 510                           | 1.10                              | 0.68                              |
| SDB1205391MZF | 390.0 $\pm$ 20%          | 1V / 1K                     | 690                           | 1.00                              | 0.65                              |
| SDB1205471MZF | 470.0 $\pm$ 20%          | 1V / 1K                     | 770                           | 0.90                              | 0.58                              |
| SDB1205561MZF | 560.0 $\pm$ 20%          | 1V / 1K                     | 860                           | 0.80                              | 0.54                              |
| SDB1205681MZF | 680.0 $\pm$ 20%          | 1V / 1K                     | 1200                          | 0.80                              | 0.48                              |
| SDB1205821MZF | 820.0 $\pm$ 20%          | 1V / 1K                     | 1340                          | 0.70                              | 0.43                              |
| SDB1205102MZF | 1000.0 $\pm$ 20%         | 1V / 1K                     | 1530                          | 0.60                              | 0.40                              |



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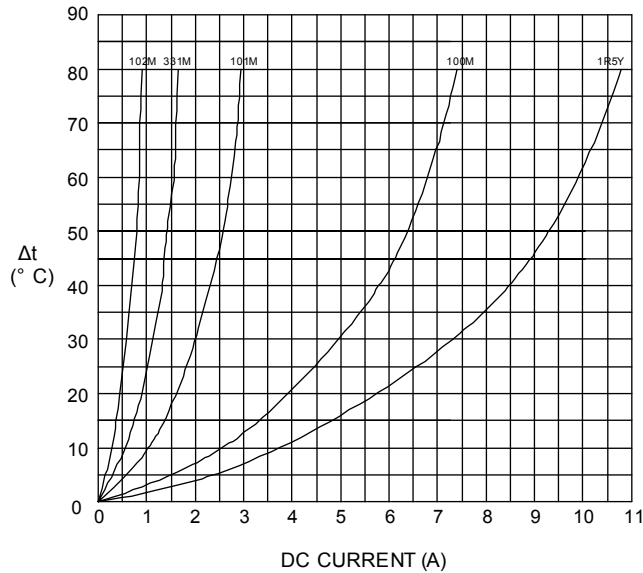


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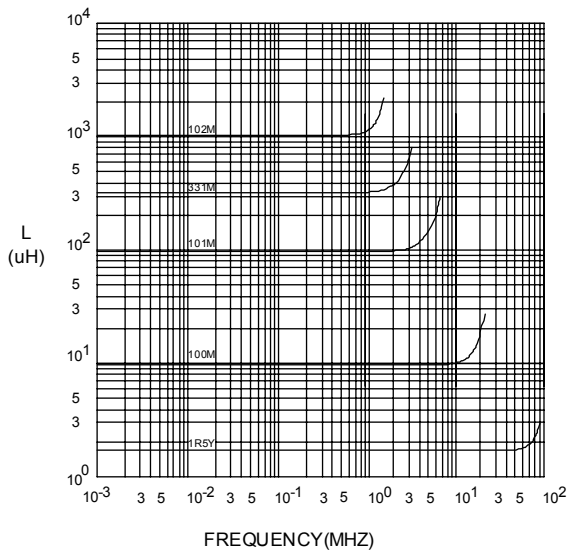
PG. 2

## 7. CHARACTERISTICS CURVES :

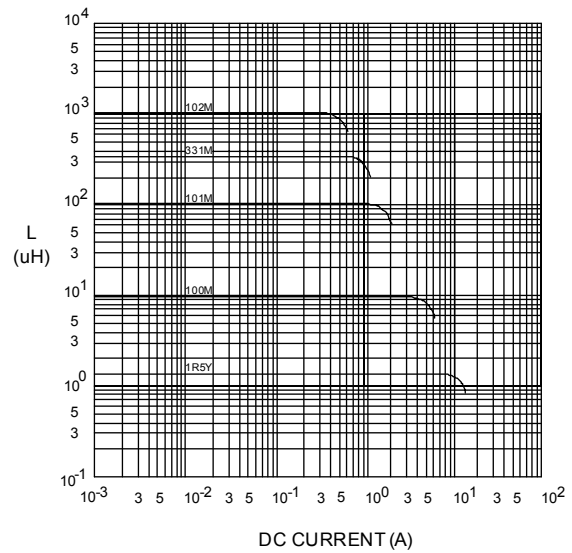
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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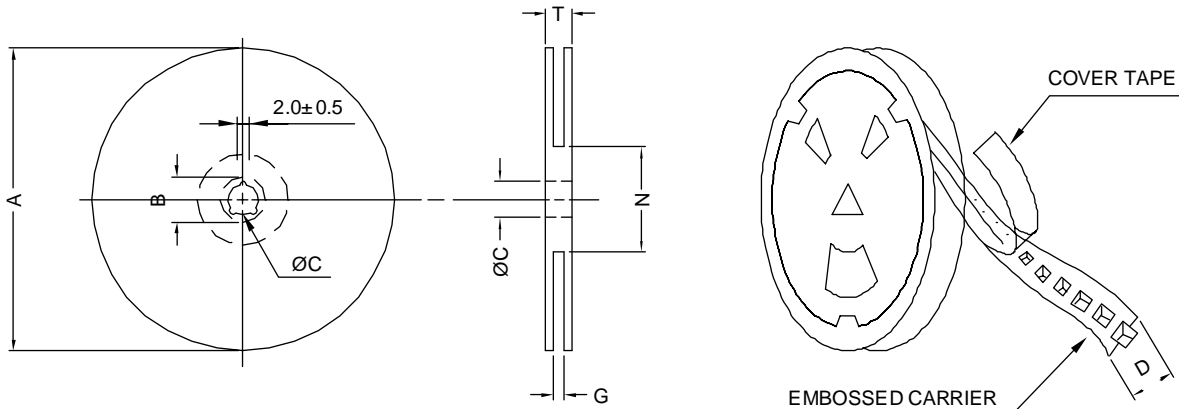
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## 8. PACKAGING INFORMATION :

### ( 1 ) CONFIGURATION



\* CARRIER TAPE WIDTH : D

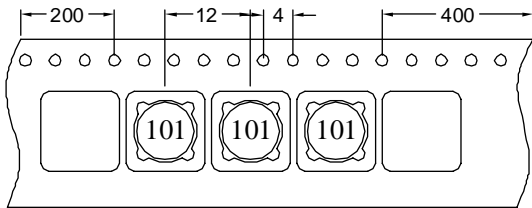


FIG : 1

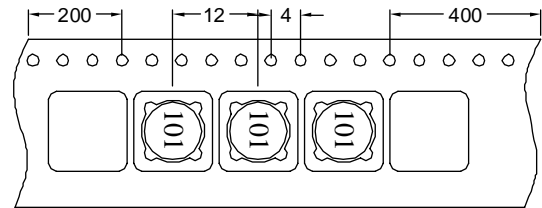


FIG : 2

### ( 2 ) DIMENSIONS

Unit:m/m

| STYLE | A   | B      | C      | D  | G                | N                | T    |
|-------|-----|--------|--------|----|------------------|------------------|------|
| 13-24 | 330 | 21±0.8 | 13±0.5 | 24 | 26 <sup>+0</sup> | 50 <sup>-0</sup> | 30.4 |

### ( 3 ) QTY & G.W. PER PACKAGE

| SERIES  | INNER : REEL |           |       | OUTER : CARTON |           |                | Package Code | FIG |
|---------|--------------|-----------|-------|----------------|-----------|----------------|--------------|-----|
|         | QTY (PCS)    | G.W. (gw) | STYLE | QTY (PCS)      | G.W. (Kg) | SIZE (cm)      |              |     |
| SDB1205 | 600          | 1900      | 13-24 | 2400           | 11.1      | 38 x 36.5 x 21 | F            | 1   |
| SDB1205 | 600          | 1900      | 13-24 | 2400           | 11.1      | 38 x 36.5 x 21 | G            | 2   |



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