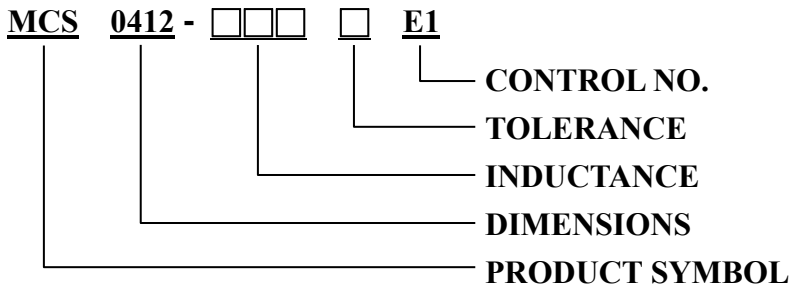


# SPECIFICATION FOR APPROVAL

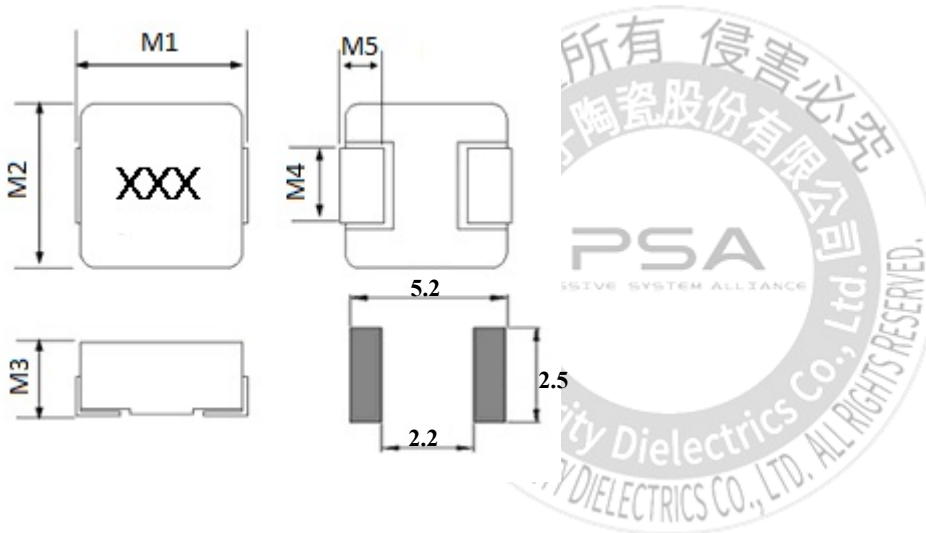
※This is a RoHS and REACH compliant product whose related documents are available on request.

※Graphic is only for dimensionally application.

## 1. PART NUMBERING IDENTIFICATION



## 2. MECHANICAL DIMENSION



UNIT: mm

|    | DIM. | TOL.  |
|----|------|-------|
| M1 | 4.4  | ±0.35 |
| M2 | 4.2  | ±0.25 |
| M3 | 1.0  | ±0.20 |
| M4 | 2.0  | ±0.30 |
| M5 | 0.8  | ±0.30 |

## 3. MARKING

Marking ex:1.0uH → 1R0



# SPECIFICATION FOR APPROVAL

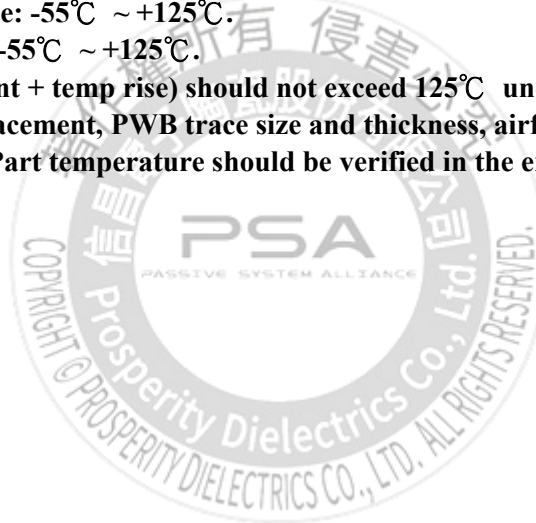
## 4. ELECTRICAL SPECIFICATION

| Part number    | Inductance<br>( $\mu$ H)<br>$\pm 20\%$ | DC Resistance<br>(m $\Omega$ )<br>TYP. | DC Resistance<br>(m $\Omega$ )<br>MAX. | Idc<br>(A)<br>TYP. | Isat<br>(A)<br>TYP. |
|----------------|--|--|--|--------------------|---------------------|
| MCS0412-R15ME1 | 0.15                                   | 8.0                                    | 9.0                                    | 7.5                | 15.0                |
| MCS0412-R22ME1 | 0.22                                   | 9.5                                    | 11.0                                   | 7.0                | 11.0                |
| MCS0412-R33ME1 | 0.33                                   | 17.0                                   | 19.0                                   | 6.5                | 8.4                 |
| MCS0412-R47ME1 | 0.47                                   | 19.0                                   | 21.0                                   | 6.0                | 6.8                 |
| MCS0412-R68ME1 | 0.68                                   | 32.0                                   | 36.0                                   | 4.7                | 6.0                 |
| MCS0412-1R0ME1 | 1.0                                    | 43.0                                   | 47.0                                   | 4.5                | 5.5                 |
| MCS0412-1R5ME1 | 1.5                                    | 68.0                                   | 75.0                                   | 3.25               | 4.0                 |
| MCS0412-2R2ME1 | 2.2                                    | 79.4                                   | 83.5                                   | 2.75               | 3.5                 |
| MCS0412-4R7ME1 | 4.7                                    | 175.0                                  | 195.0                                  | 1.8                | 2.8                 |

TEST INSTRUMENT: Wayne kerr 3260B/G LCR Meter/ Wayne kerr 3265B Bias Current Source

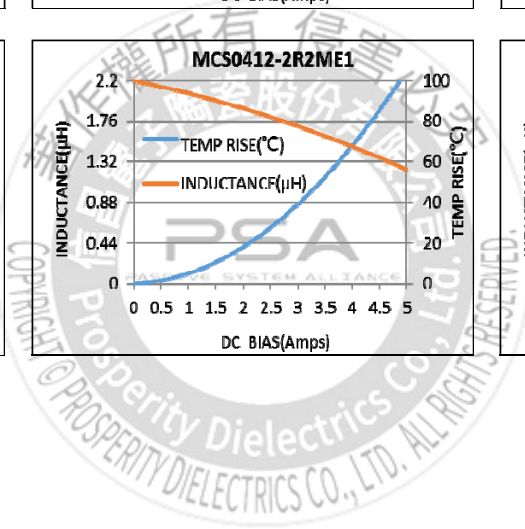
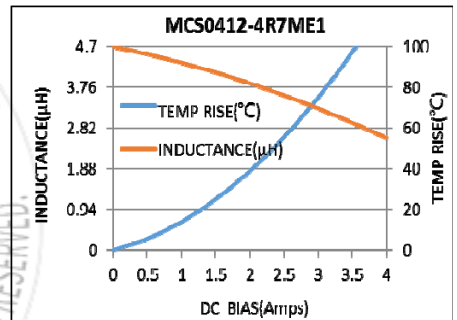
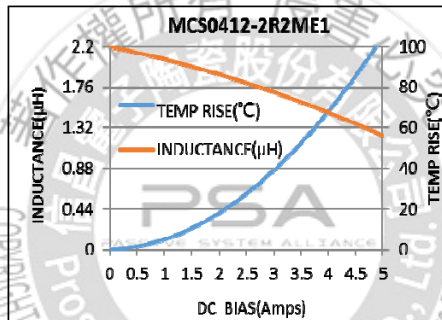
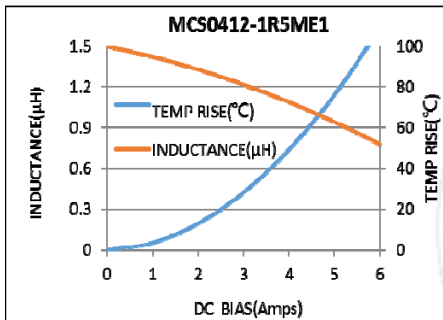
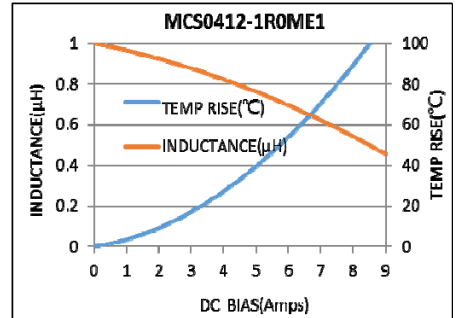
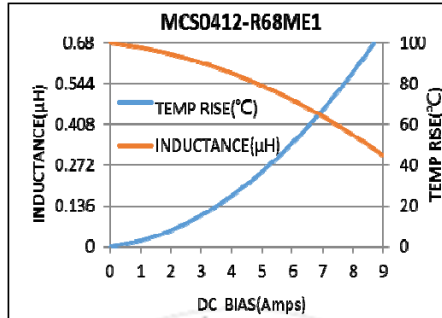
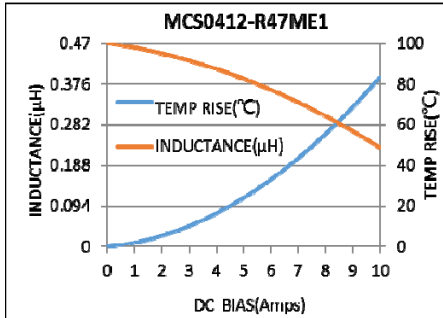
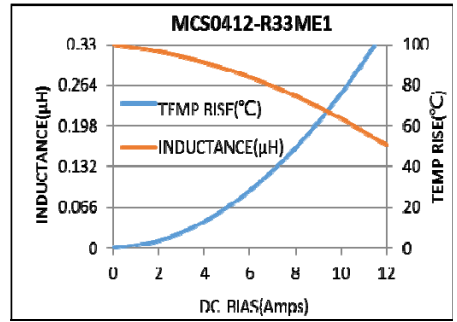
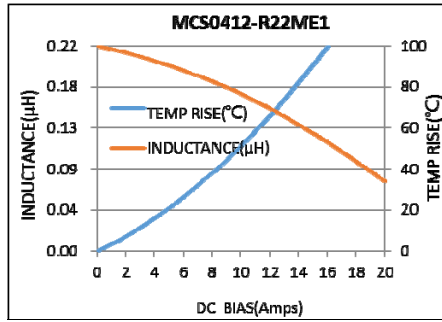
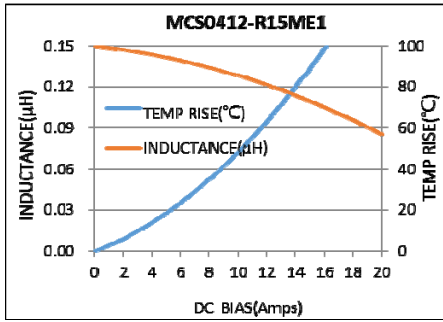
**NOTE:**

1. Test Freq.: 100KHz/1V.
2. All test Data is referenced to 25°C ambient.
3. Idc(A): DC current (A) that will cause an approximate  $\Delta T$  of 40°C (reference ambient temperature is 25°C).
4. Isat(A): DC current (A) that will cause L0 to drop approximately 30%.
5. Operation Temperature Range: -55°C ~ +125°C.
6. Storage Temperature Range: -55°C ~ +125°C.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.  
Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. MSL: Level 1



# SPECIFICATION FOR APPROVAL

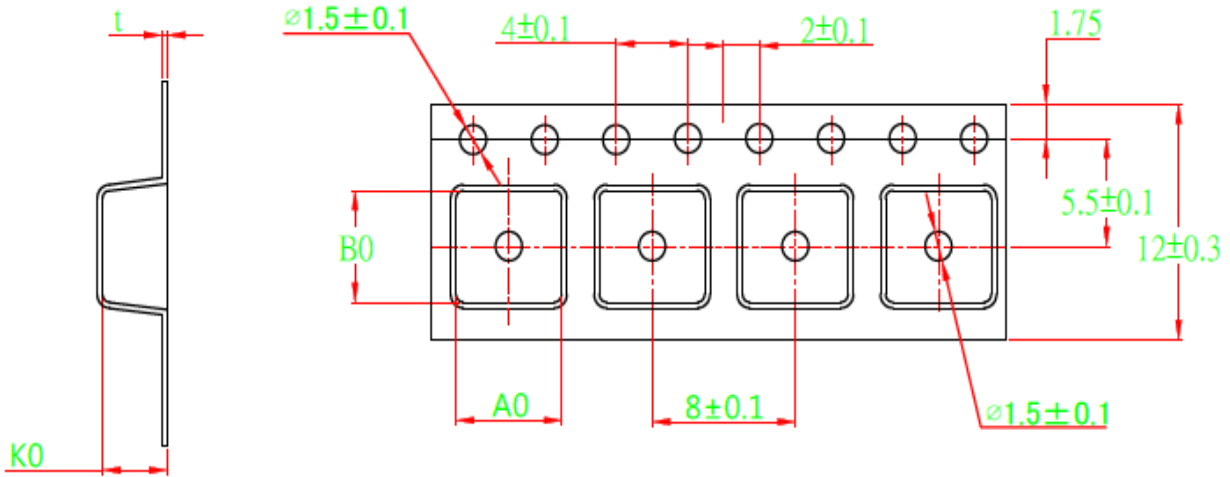
## 5. ELECTRICAL CURVE



# SPECIFICATION FOR APPROVAL

## 6. PACKING

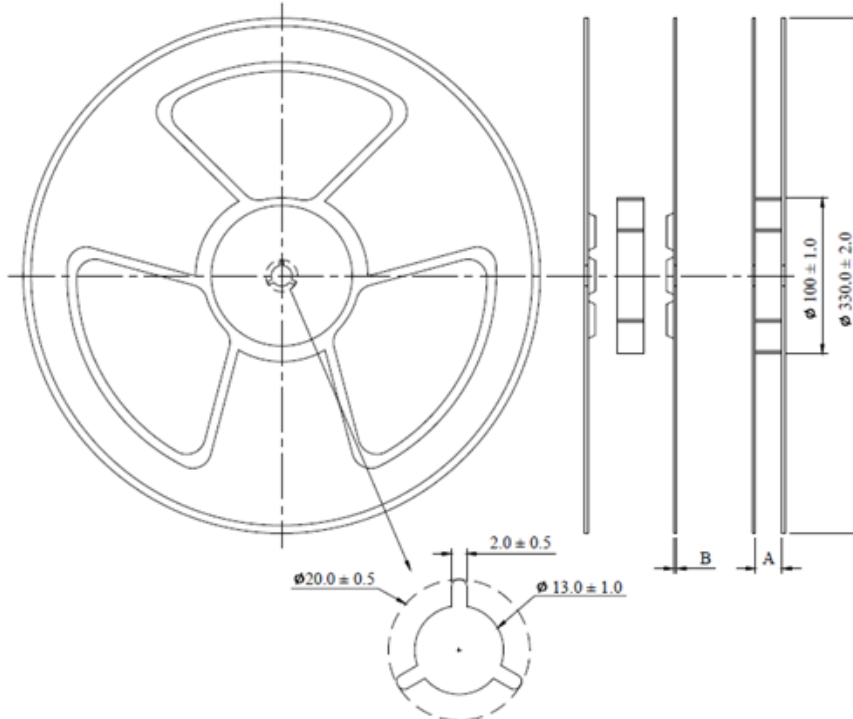
### 6-1. Tape Packaging Dimensions



UNIT: mm

| A0             | B0             | K0             | t               |
|----------------|----------------|----------------|-----------------|
| $4.5 \pm 0.10$ | $4.8 \pm 0.10$ | $1.4 \pm 0.15$ | $0.35 \pm 0.05$ |

### 6-2. Reel Dimensions



UNIT: mm

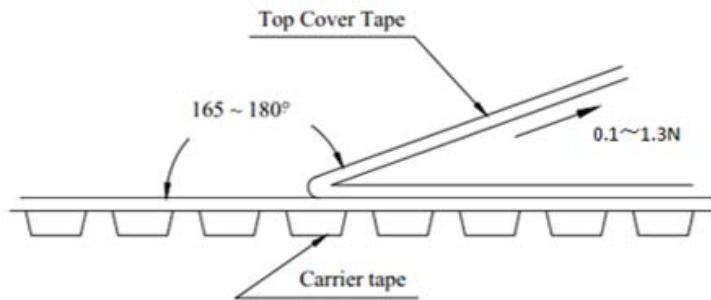
| A              | B             |
|----------------|---------------|
| $12.5 \pm 0.5$ | $2.0 \pm 0.2$ |

# SPECIFICATION FOR APPROVAL

## 6-3. Peel force of top cover tape

The peel speed shall be about 300mm/minute

The peel force of top cover tape shall be between 0.1 to 1.3 N



## 6-4. Numbers of taping: 3000pieces/reel

