

# **PRODUCT SPECIFICATION**

**SPEC. NO: D-2603-04**

**DATE: Mar.3,2026**

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

**BWWP404030220M00**

THIS SPECIFICATION IS:

- ☐ FULLY ACCEPTED
- ☐ DENIED
- ☐ ACCEPTED UNDER THE FOLLOWING CONDITIONS



SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

NAME(PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

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**EMTEK CO., LTD.**

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## 1. Features

- Stable Inductance Performance & Low Power Consumption Design
- Reliable Current Carrying Capacity
- Wide Temperature Range Adaptability
- Excellent Environmental and Mechanical Reliability

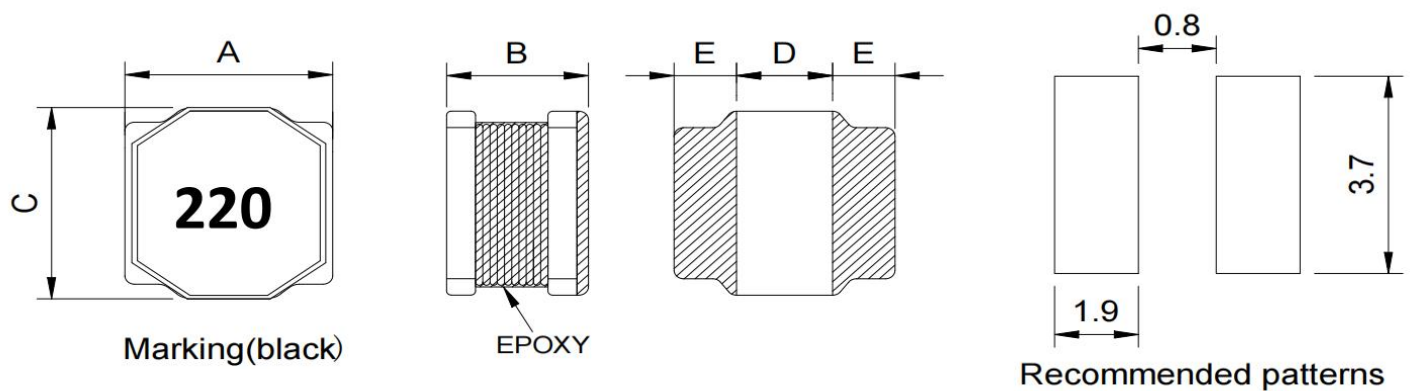
## 2. Application

- Applicable to power management modules of audio-visual entertainment and home appliance products.
- Used in power supply circuits of computers and office automation equipment.
- Applied to communication equipment and small power supply module circuit systems.
- Suitable for LED lighting, measuring instruments and industrial control board power drive circuits.

## 3. Part numbering

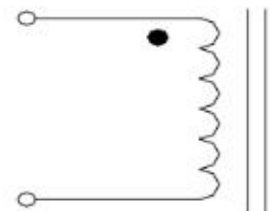
|          |   |                |   |                |   |                        |   |           |   |              |
|----------|---|----------------|---|----------------|---|------------------------|---|-----------|---|--------------|
| <b>B</b> | - | <b>WWP</b>     | - | <b>404030</b>  | - | <b>220</b>             | - | <b>M</b>  | - | <b>00</b>    |
| Grade    |   | Product Series |   | Dimensions(mm) |   | Impedance ( $\Omega$ ) |   | Tolerance |   | Control code |

## 4. Appearance and Dimensions



Marking: BLACK "XXX"

| A             | B       | C             | D             | E              |
|---------------|---------|---------------|---------------|----------------|
| $4.0 \pm 0.2$ | 3.0 Max | $4.0 \pm 0.2$ | $1.3 \pm 0.3$ | $1.35 \pm 0.3$ |



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## 5. Rating

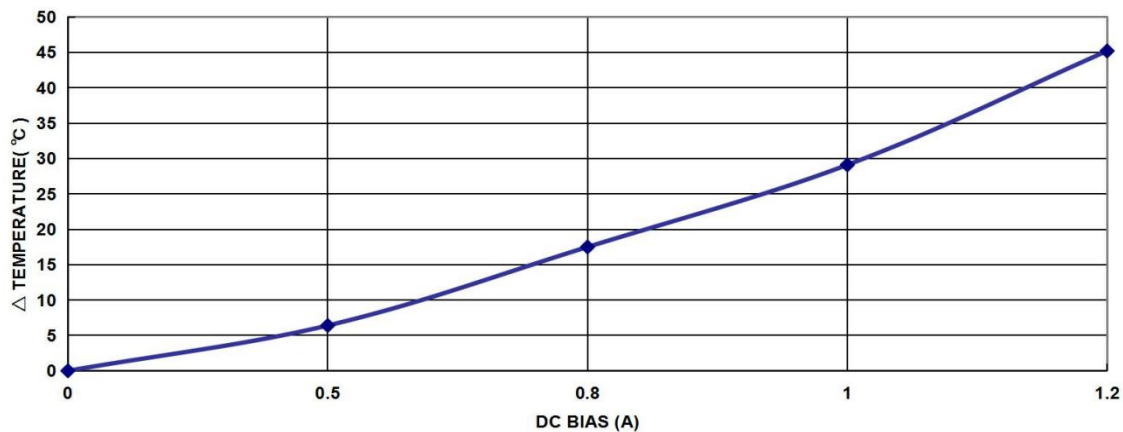
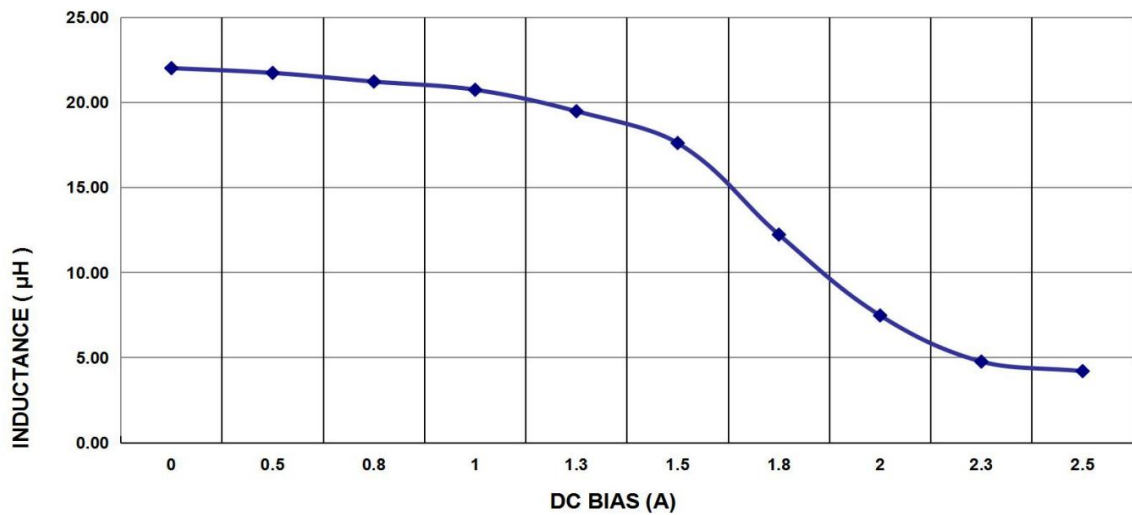
NOTE:

- Operating temperature:  $-40^{\circ}\text{C}\sim+125^{\circ}\text{C}$

### ELECTRICAL CHARACTERISTICS(@ 25°C)

| Part No.         | Inductance $L_o$<br>( $\mu\text{H}$ ) $\pm 20\%$ | Test<br>Frequency<br>(Hz/v) | DC<br>Resistance<br>( $\text{m}\Omega$ ) $\pm 30\%$ | Isat (A) TYP<br>$\Delta L/L \cong -30\%$ | Irms (A)MAX<br>$\Delta T \leq 40^{\circ}\text{C}$ |
|------------------|--------------------------------------------------|-----------------------------|-----------------------------------------------------|------------------------------------------|---------------------------------------------------|
| BWWP404030220M00 | 22.0                                             | 100KHZ/1V                   | 225.0                                               | 1.3                                      | 1.0                                               |

### Typical Electrical Characteristics



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6. Reliable Performance

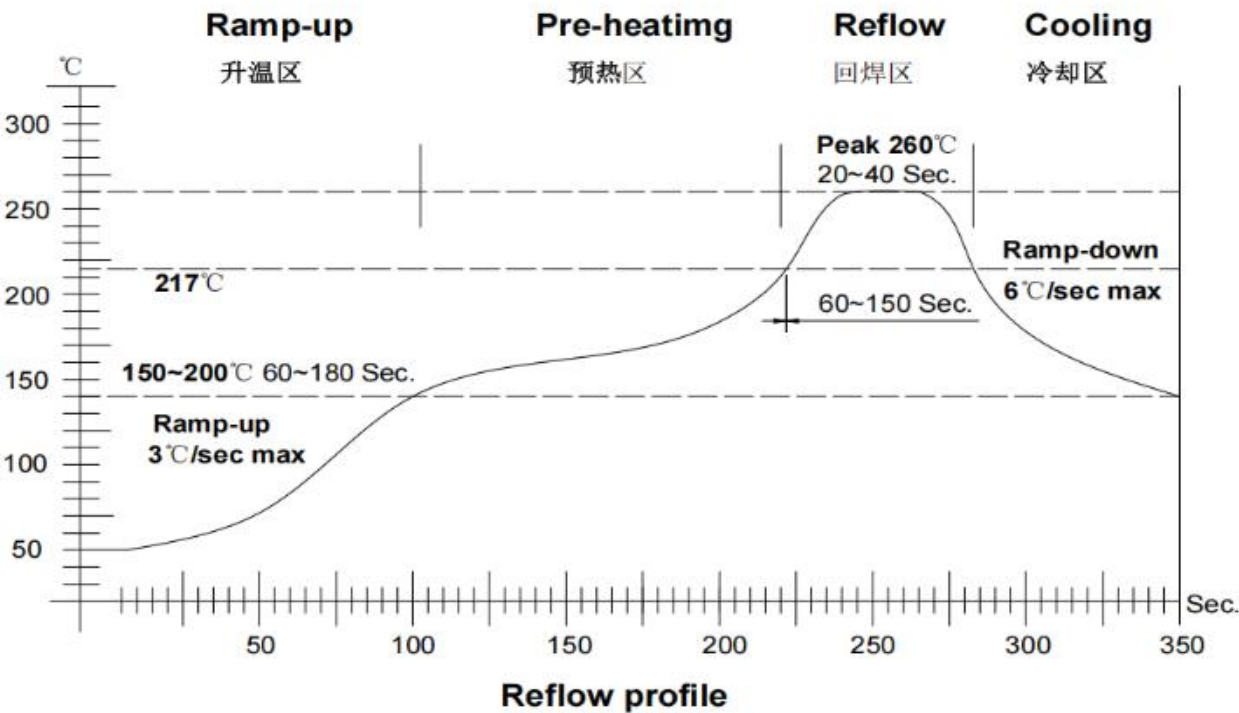
|           | INDUCTANCE   | DCR           | L(uH)           |  |  | A       | B        | C       | D       | E        |
|-----------|--------------|---------------|-----------------|--|--|---------|----------|---------|---------|----------|
|           |              |               | DC 1.3A         |  |  |         |          |         |         |          |
| No        | 22uH<br>±20% | 225mΩ<br>±30% | L0A*70%<br>Ref. |  |  | 4.0±0.2 | 3.0 Max. | 4.0±0.2 | 1.3±0.3 | 1.35±0.3 |
| 1         | 22.04        | 257.51        | 19.43           |  |  | 4.07    | 2.88     | 4.06    | 1.32    | 1.37     |
| 2         | 22.17        | 259.11        | 19.50           |  |  | 4.07    | 2.82     | 4.04    | 1.32    | 1.38     |
| 3         | 22.37        | 263.19        | 19.66           |  |  | 4.10    | 2.86     | 4.04    | 1.34    | 1.40     |
| 4         | 22.46        | 251.48        | 19.86           |  |  | 4.06    | 2.86     | 4.06    | 1.34    | 1.38     |
| 5         | 20.85        | 262.37        | 18.92           |  |  | 4.10    | 2.87     | 4.03    | 1.33    | 1.35     |
| 6         | 21.34        | 265.36        | 18.66           |  |  | 4.10    | 2.83     | 4.06    | 1.35    | 1.36     |
| 7         | 21.75        | 259.51        | 19.10           |  |  | 4.08    | 2.84     | 4.08    | 1.30    | 1.39     |
| 8         | 22.36        | 249.86        | 19.72           |  |  | 4.04    | 2.83     | 4.06    | 1.32    | 1.37     |
| 9         | 21.75        | 263.91        | 19.36           |  |  | 4.06    | 2.86     | 4.03    | 1.35    | 1.37     |
| 10        | 23.18        | 257.55        | 20.11           |  |  | 4.08    | 2.87     | 4.02    | 1.33    | 1.38     |
| X         | 22.03        | 258.99        | 19.43           |  |  | 4.08    | 2.85     | 4.05    | 1.33    | 1.38     |
| R         | 2.33         | 15.50         | 1.45            |  |  | 0.06    | 0.06     | 0.06    | 0.05    | 0.05     |
| All judge |              | ■ OK    □ NG  |                 |  |  |         |          |         |         |          |

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7.Recommended Soldering Conditions



- 1) Iron soldering power: Max.30W
- 2) Pre-heating: 150°C,1 Minute
- 3) Soldering Tip temperature: 350°C Max.
- 4) Soldering time: 3sec Max.

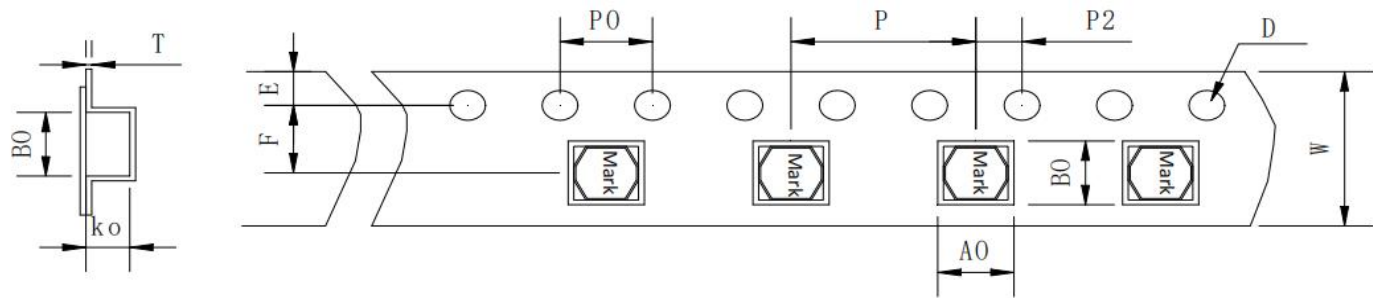
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8.Packaging

Carrier Tape (Unit:mm)



| W    | A0   | B0   | K0   | D    | F    | E    | P     | P0   | P2   | T     |
|------|------|------|------|------|------|------|-------|------|------|-------|
| 12.0 | 4.3  | 4.3  | 3.2  | 1.5  | 5.5  | 1.75 | 8.0   | 4.0  | 2.0  | 0.4   |
| ±0.3 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.15 | ±0.1 | ±0.1 | ±0.05 |

Reel Dimensions



| Item | Dimension |
|------|-----------|
| A    | 330±1     |
| B    | 100±1     |
| C    | 13±0.5    |

QTY

Reel (Pcs)      2000

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9.Storage

(1) Storage period

Use the products within 12 months after delivered. Solderability should be checked if this period is exceeded.

(2 ) Storage conditions

- Storage temperature: -10℃~40℃
- Storage environment: humidity: RH<70%

(3) Delivery

Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.