

PRODUCT SPECIFICATION

SPEC. NO: D-2603-03

DATE: Mar.3,2026

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

BMDP7666506R8M00

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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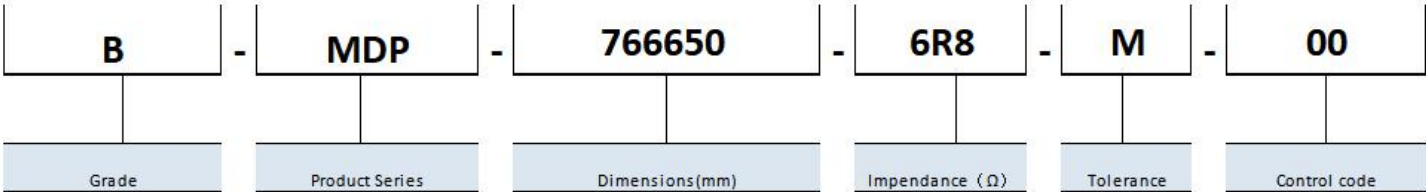
1. Features

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

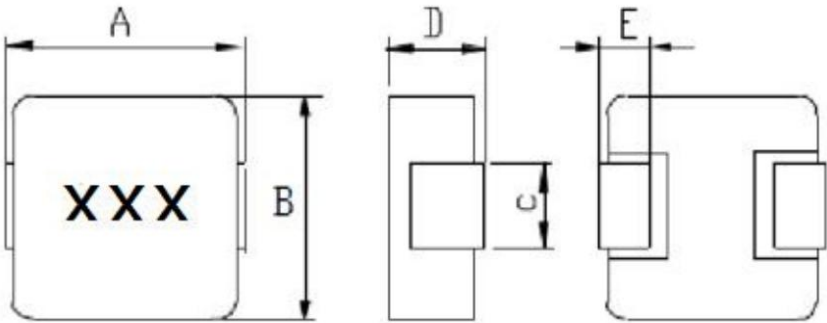
2. Application

- Applicable to power management modules of consumer electronic products such as smart phones and tablet computers.
- Used in power supply circuits of smart home devices including smart speakers and intelligent sockets.
- Applied to low-voltage and high-current circuit systems of portable electronic products like notebook computers and power banks.
- Suitable for power drive circuits of small household appliances such as wireless chargers and mini fans.

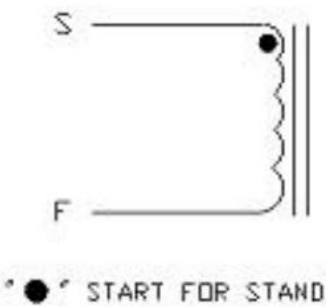
3. Part numbering



4. Appearance and Dimensions



Schematic Diagram:



Marking:黑色"XXX"

A	B	C	D	E
7.6Max	6.6±0.2	3.0±0.3	5.0Max	1.6±0.3

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5. Rating

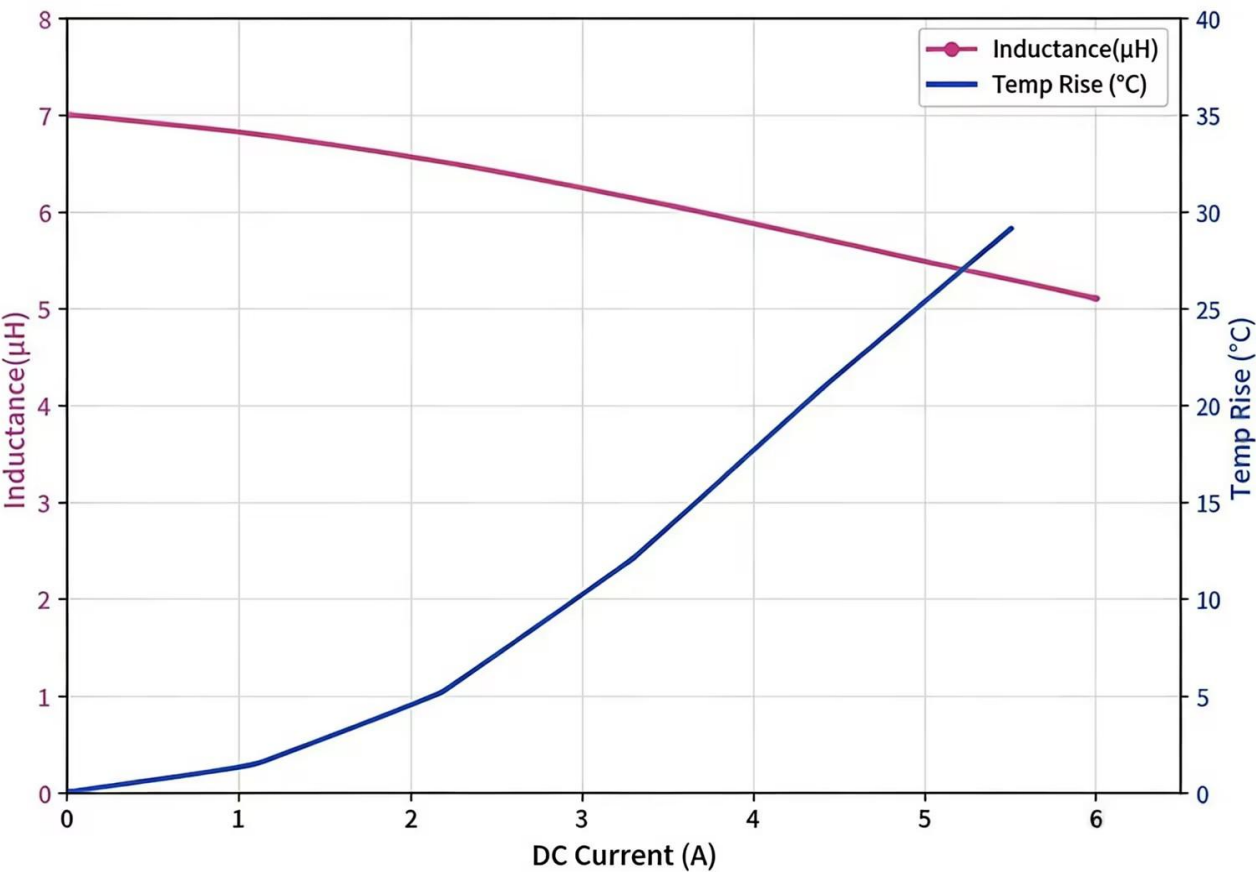
NOTE:

- Operating temperature: -55℃~+125℃

ELECTRICAL CHARACTERISTICS(@ 25℃)

Part No.	Inductance Lo (uH) ±20%	Test Frequency (Hz/v)	DC Resistance (mΩ) MAX.	Isat (A) TYP ΔL/L≧-30%	Irms (A) TYP ΔT≦40℃
BMDP7666506R8M00	6.8	100KHZ/1V	31.0	6	5.5

Typical Eleectrical Characteristics

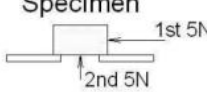


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6. Reliable Performance

	Item	Specification	Condition
1	Adhesion strength	Appearance no damage; Inductance within $\pm 10\%$ of initial value.	A static load using a R0.5 pressing tool shall be applied the arrow and to the body of the specimen in the direction of the arrow and shall be hold for $60 \pm 5s$. Measure after removing pressure; 
2	Vibration	Appearance no damage; Inductance within $\pm 10\%$ of initial value;	Vibration Frequency: $10 \sim 55 \sim 10Hz$ Amplitude: $1.5mm$ Sweep time: $1min$ Test Directions: X, Y, Z Test Time: 2 hours each direction;
3	Free fall test	Appearance no damage; Inductance within $\pm 10\%$ of initial value;	The specimen must be fixed on test board. It must be equipped with instruments of which weight is $500g$. Then it shall be fallen freely from $1m$ height to rigid wood 3 times in each of three axes;
4	Solder ability	New solder shall cover 95% minimum of the surface immersed.	Terminals shall be immersed for 5 to 10 seconds in flux at room temperature. Dip sample into solder bath containing molten solder at $260 \pm 5^{\circ}C$ for 3 ± 0.5 seconds.
5	Dump heat test	Inductance within $\pm 10\%$ of initial value	The specimen shall be stored at a temperature of $40 \pm 5^{\circ}C$ with relative humidity of $90 \sim 95\%$ for $96 \pm 4h$. Then it shall be stabilized under standard atmospheric conditions for $1h \sim 2h$ before measurement.
6	Reflow test	Inductance within $\pm 10\%$ of initial value	Peak temp/ duration of stay. $260 \pm 5^{\circ}C / 30 \pm 10s$ The specimen shall be subjected to the reflow process under the above condition 2 times. Test board shall be $0.8mm$ thick. Base material shall be glass epoxy resin. Measurement : hen it shall be stabilized under standard atmospheric conditions for $1h \sim 2h$ before measurement.
7	Low temperature preservation test	Inductance within $\pm 10\%$ of initial value	The specimen shall be stored at a temperature of $-40 \pm 3^{\circ}C$ for $96 \pm 4h$. Then it shall be stabilized under standard atmospheric conditions for $1h \sim 2h$ before measurement.
8	High temperature preservation test	Inductance within $\pm 10\%$ of initial value	The specimen shall be stored at a temperature of $125 \pm 3^{\circ}C$ for $96 \pm 4h$. Then it shall be stabilized under standard atmospheric conditions for $1h \sim 2h$ before measurement.
9	Cold and hot cycle test	Inductance within $\pm 10\%$ of initial value	Placed at the temperature of $-40 \pm 3^{\circ}C$ for 30 minutes, placed at $125^{\circ}C \pm 3^{\circ}C$ for 30 minutes, the heat and cold conversion time of no more than 5 ± 2 minute for a cycle, after 20 cycles, Then it shall be stabilized under standard atmospheric conditions for $1h \sim 2h$ before measurement.



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Atmospheric conditions:

Unless otherwise specified, the standard range of atmospheric conditions in making measurements

and test as follows:

Ambient temperature : 5℃ to 35℃

relative humidity: 45% to 85%

air pressure: 86kPa to 106kPa

If more strict measurement is required, measurement shall be made within following limits:

Ambient temperature : 20±2℃

relative humidity: 65±5%

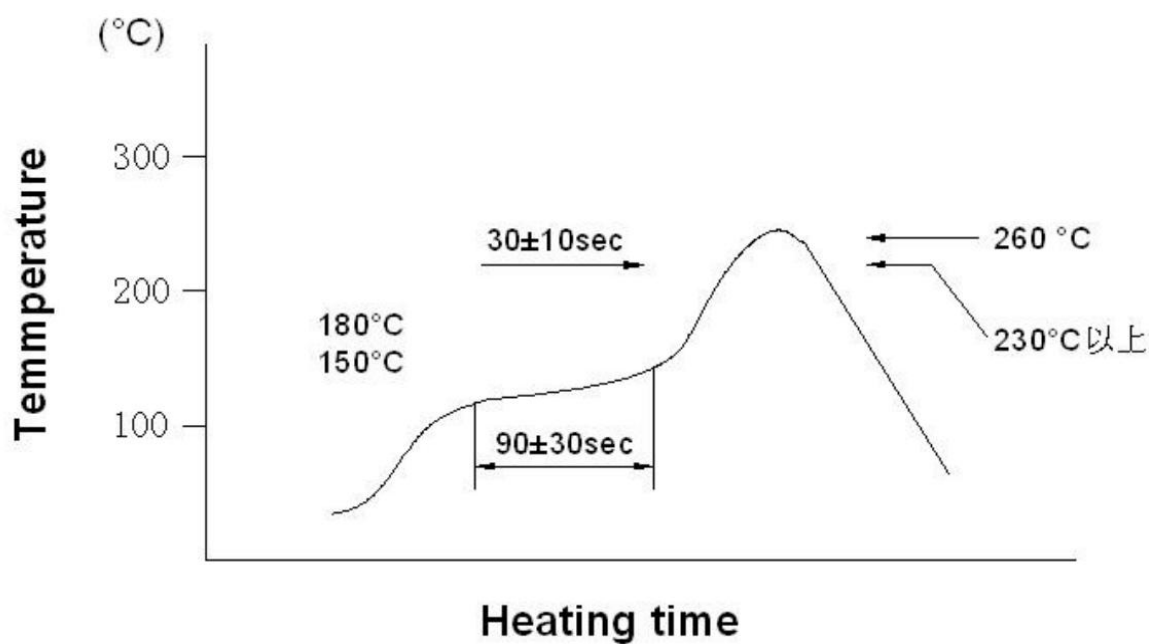
air pressure: 86kPa to 106kPa

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7.Recommended Soldering Conditions



1. Reflow times:2 cycles

2 Reflow times: 2times max.

3 We recommend infrared ray as heat source of reflow bath.

4 However halogen lamp shall be used, side heat will be beyond range of resistance heat,

so we can't recommend it.

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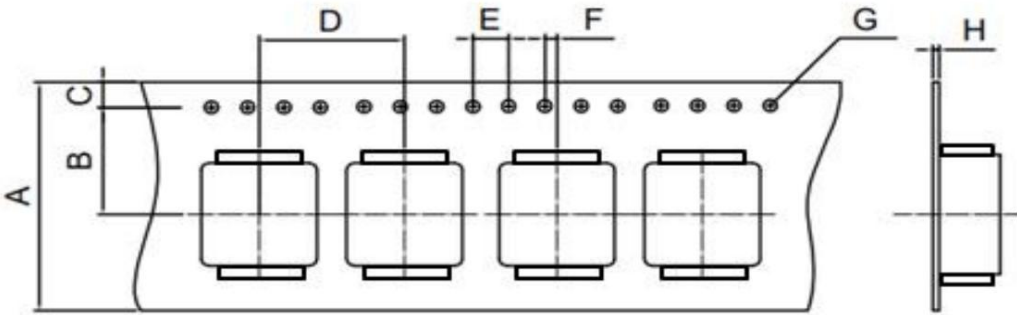
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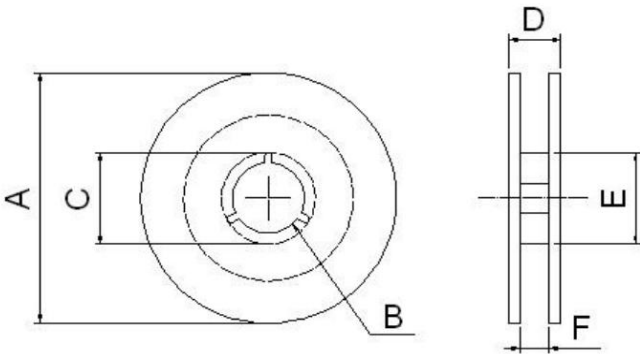
8.Packaging

Carrier Tape (Unit:mm)



A	16.0±0.2
B	7.5±0.1
C	1.75±0.1
D	12.0±0.1
E	4.0±0.1
F	2.0±0.1
G	Ø1.5±0.1
H	0.3±0.05

Reel Dimensions:



A	330.0
B	Ø13.0
C	30.0
D	21.0
E	100.0
F	18.0

QTY

Reel (Pcs) 1000

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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: 5℃~35℃
- Storage environment: humidity: RH25%~80%

(3) Delivery

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