

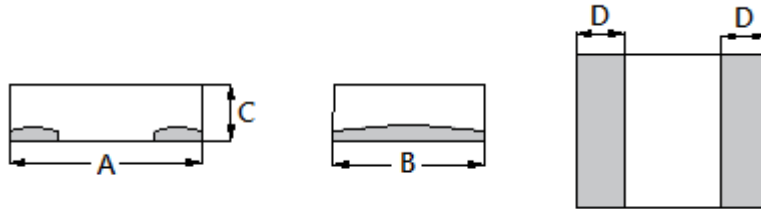
# EMPF322512A-Series-T Specification

## SMD Molding Type Power Inductor

### APPLICATION

Smart phones, tablet terminals, HDDs, SSDs, DVCs, DSCs, mobile display panels, portable game devices, compact power supply modules, other

### 1. Shapes and Dimensions



Unit: mm

Type	A	B	C	D
EMPF322512A	3.2±0.30	2.50±0.30	1.20 Max.	1.1±0.30

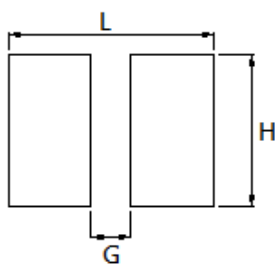
### 2. Ordering / Part Number Information

EMPF 322512 A - 2R2 M - T  
 (1) (2) (3) (4) (5) (6)

- (1) Product Group
- (2) Dimension Code
- (3) Type Code
- (4) Inductance Code
- (5) Inductance Tolerance Code
- (6) Control Code

### 3. Recommended Soldering Condition

#### 3-1. Recommended Land Pattern

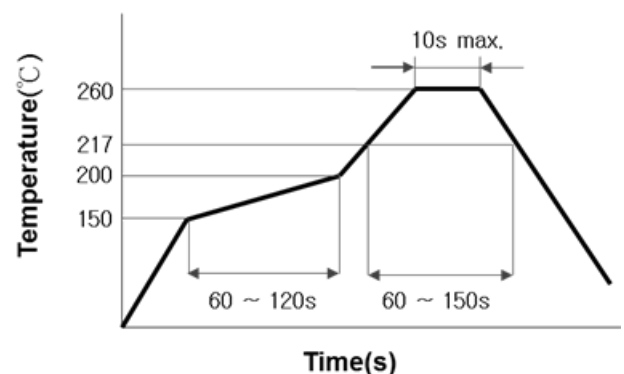


Unit : mm

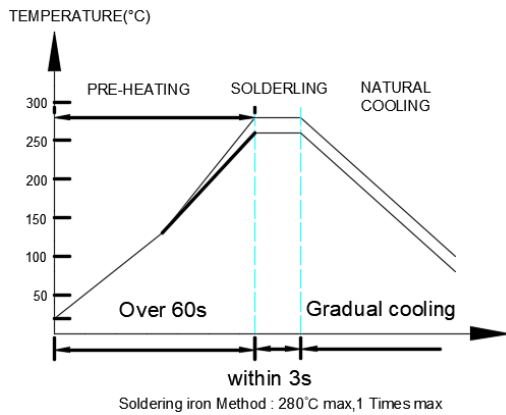
Symbol	Dimension
L	3.7
G	0.7
H	2.8

The Recommended Land pattern is for reference only.  
 Please consult your manufacturing partners to ensure your company's PCB design guidelines are met

#### 3-2. Recommended Soldering Profile



### 3-3. Iron soldering temperature profiles



## 4. Electrical Characteristics

### 4-1. Electrical Specification

Part Number	Inductance (L) @100KHz, 1.0V	DC Resistance (R <sub>DC</sub> ) Max.	Saturation Current (I <sub>SAT</sub> ) Typ.	Temperature Rise Current (I <sub>RMS</sub> ) Typ.
EMPF322512A-R22M-T	0.22μH±20%	8.5mΩ	7.83A	7.20A
EMPF322512A-R33M-T	0.33μH±20%	13.0mΩ	7.65A	6.40A
EMPF322512A-R47M-T	0.47μH±20%	19.2mΩ	6.66A	5.20A
EMPF322512A-R68M-T	0.68μH±20%	24.0mΩ	6.12A	4.56A
EMPF322512A-1R0M-T	1.00μH±20%	32.0mΩ	5.13A	4.00A
EMPF322512A-1R5M-T	1.50μH±20%	53.0mΩ	4.05A	3.12A
EMPF322512A-2R2M-T	2.20μH±20%	73.0mΩ	3.87A	2.88A
EMPF322512A-3R3M-T	3.30μH±20%	101.0mΩ	2.70A	2.24A
EMPF322512A-4R7M-T	4.70μH±20%	146.0mΩ	2.16A	1.52A

Note1. Saturation Current for Inductance drop 30% from its value without current

(Test by a short period of time to minimize the self-heating effect of the component.)

Note2. Heat Rated Current (I<sub>RMS</sub>) will cause the coil temperature rise approximately ΔT of 40°C

Note3. I<sub>RMS</sub> Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.

Note4. Rated voltage 35V DC ,The application of voltage depends on many factors , Over voltage may cause components failure , high temperature , and burn-out, User needs to verify for appropriate usage.

### 4-2. Operating Temperature Range

-40°C to +125°C (Including self - temperature rise)

### 4-3. Storage Temperature Range

Store this product under the condition of -5°C to 35°C, 45% to 85%RH and use within 6 months

## 5. Packaging Information

Standard Quantity for Packaging: 2,000 pcs/Reel

## Note

1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)

Reference