# SMD Power Inductors
# -YSMC0412V Series

## ■ Features

- Molding Inductor.
- Low Profile,Low Temp.
- Large Current(Over 15A).
- Customize For Different Need.
- Operating temperature:-55℃ ~ +125℃(Including self - temperature rise).

## ■ Applications

- General Electronic.
- Video Device,TV,TFT.
- Power Module for PC.
- NB/Lap Top Computer.
- Server,VGA Card/Module.

## ■ Product Identification

YSMC □□□□□－□□□ □

(1) (2) (3) (4)

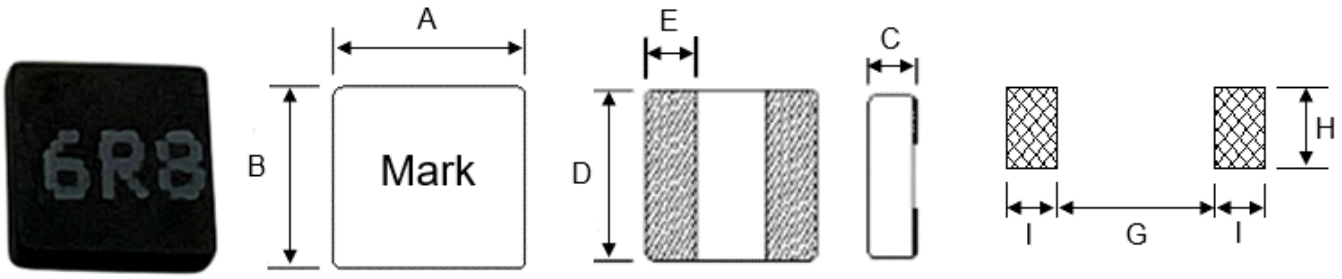
(1)： Type

(2)： Dimensions

(3)： Inductance value

(4)： Inductance Tolerance： N=±30%,M=±20%

## ■ Shapes and Dimensions (Unit： mm)




| TYPE | A | B | C Max. | D | E | G Ref. | H Ref. | I Ref. |
|---|---|---|---|---|---|---|---|---|
| YSMC0412V | 4.0±0.3 | 4.0±0.3 | 1.2 | 4.0±0.3 | 1.2+0.3/-0.2 | 1.5 | 4.3 | 1.5 |

## ■ YSMC0412V Series

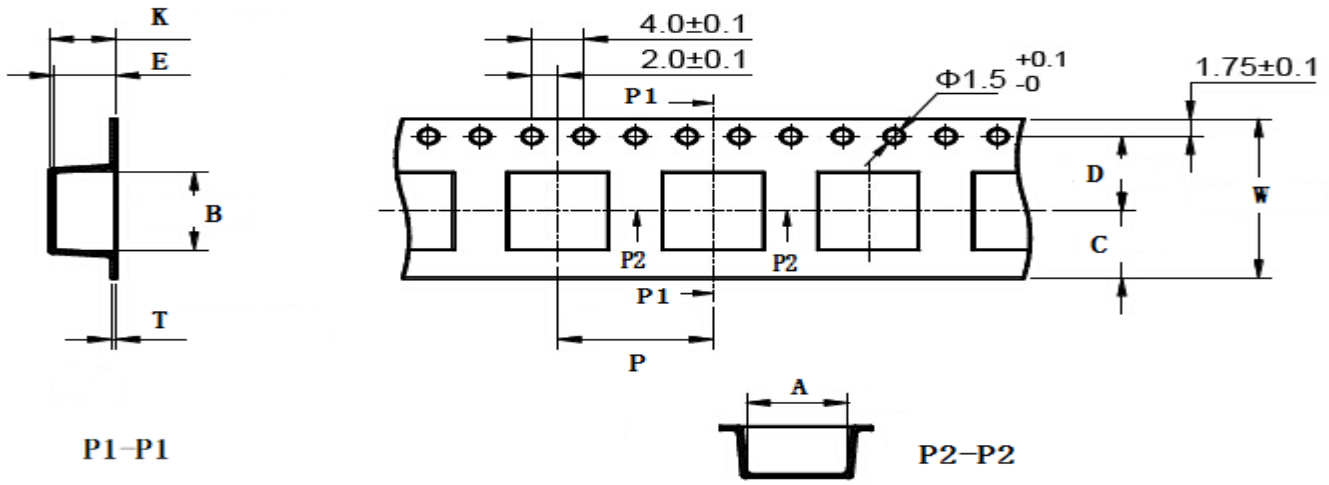
| Part Number | Inductance (uH) @100KHz | DC Resistance (mΩ) | | Heat Rating Current (A) | Saturation Current (A) |
|---|---|---|---|---|---|
| | | Typ. | Max. | | |
| YSMC0412V-R25M | 0.25±20% | 8.0 | 10.0 | 8.0 | 11.0 |
| YSMC0412V-R47M | 0.47±20% | 20.0 | 25.0 | 7.0 | 9.5 |
| YSMC0412V-R68M | 0.68±20% | 25.0 | 30.0 | 6.0 | 8.0 |
| YSMC0412V-1R0M | 1.0±20% | 27.0 | 33.0 | 5.0 | 7.0 |
| YSMC0412V-1R5M | 1.5±20% | 43.0 | 55.0 | 4.2 | 6.5 |
| YSMC0412V-2R2M | 2.2±20% | 52.0 | 63.0 | 4.0 | 6.0 |
| YSMC0412V-3R3M | 3.3±20% | 78.0 | 90.0 | 3.5 | 5.0 |
| YSMC0412V-4R7M | 4.7±20% | 96.0 | 110.0 | 3.0 | 4.5 |
| YSMC0412V-5R6M | 5.6±20% | 121.0 | 140.0 | 2.5 | 4.0 |
| YSMC0412V-6R8M | 6.8±20% | 137.0 | 160.0 | 2.3 | 3.5 |
| YSMC0412V-100M | 10±20% | 210.0 | 240.0 | 1.8 | 2.5 |

※ The saturation current value is the DC current value having inductance decrease down to 30%.(at 20℃)

※ The temperature rise current value is the DC current value having temperature increase up to 40℃. (at 20℃)

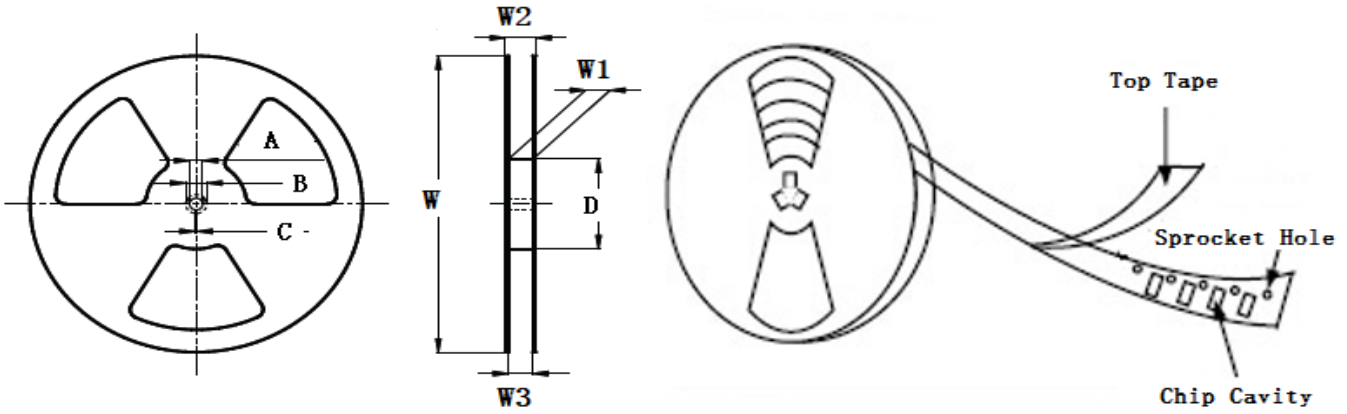
※ The rated current is the DC current value that satisfies both of current value saturation current value and temperature rise current value.

## ■ Taping Dimensions(Unit:mm)



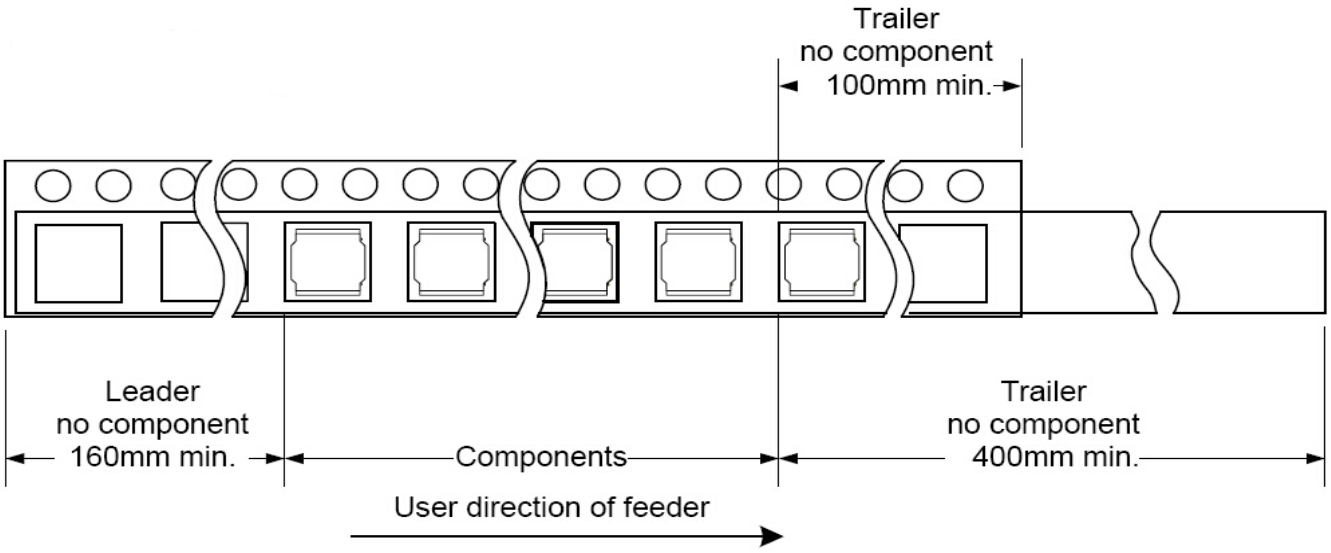

| TYPE | W | A | B | C | D | E | P | K Ref | T | MPQ |
|---|---|---|---|---|---|---|---|---|---|---|
| YSMC0412V | 12±0.3 | 4.3±0.1 | 5.10±0.1 | 4.75 | 5.5±0.1 | 2.1±0.1 | 8±0.1 | 2.2 | 0.30±0.05 | 3000 |

## ■ Reel Dimensions(Unit:mm)

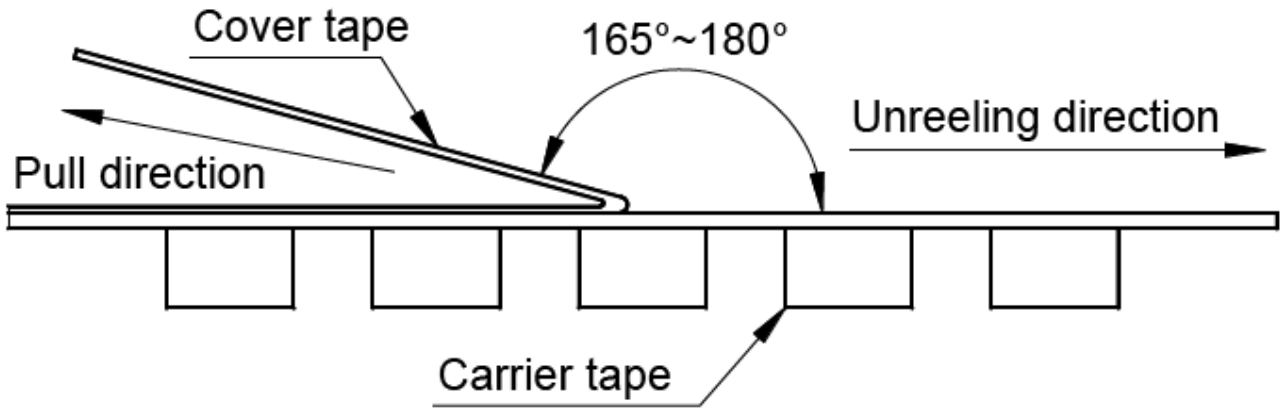



| TYPE | W | W1 | W2 | W3 | A | B | C | D |
|---|---|---|---|---|---|---|---|---|
| YSMC0412V | 330±2.0 | 12.4±1.50 | 18.4MAX | 11.9Min | 13.0±0.50 | 21.0±0.80 | 2.0±0.50 | 100 Min |

## ■ Direction of rolling




## ■ Cover tape peel off condition




Cover tape peel force shall be 0.1N to 1.3N.

Reference peel speed 300±10mm/min.