

# SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

## SPM Series SPM6530

The SPM6530 is a large-current SMD power inductor that uses a magnetic metal material.

This product has good superimposition characteristics and low DC resistance.

### FEATURES

- Small footprint and Low profile design  
Footprint: 7.1×6.5mm  
Height: 3.0mm max.
- High power handling capability:  
Small copper loss  
Using large saturation induction of Fe-based metals
- A high Curie temperature of about 550°C means low inductance temperature variance.
- Available for automatic mounting in tape and reel package.

### APPLICATIONS

Note book type computers, VRMs, etc.

### PRODUCT IDENTIFICATION

SPM	6530	T	- 3R3	- M
(1)	(2)	(3)	(4)	(5)

(1) Series name

(2) Dimensions L×H

6530	6.5×3.0mm max.
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(3) Packaging style

T	Embossed carrier tape
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(4) Inductance value

3R3	3.3μH
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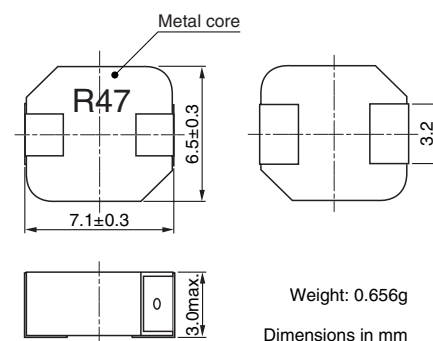
(5) Inductance tolerance

M	±20%
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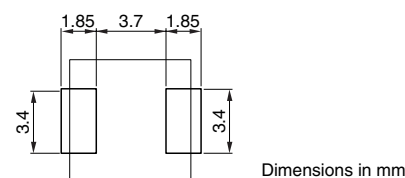
### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 pieces/reel

### SHAPES AND DIMENSIONS



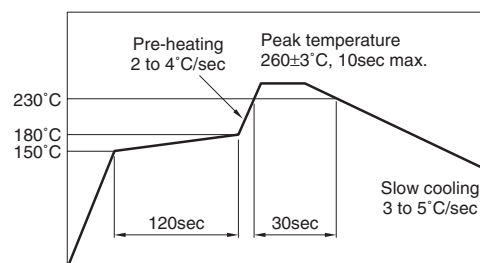
### RECOMMENDED PC BOARD PATTERN



### CIRCUIT DIAGRAM



### RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



### HANDLING AND PRECAUTIONS

- Please contact us before cleaning this product.
- Maintain a safe distance between this product and other components according to the working voltage.
- If this product is left in a humid environment for a long period of time, rust may appear on the surface. However, this does not affect performance.

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• Please contact our Sales office when your application are considered the following:  
The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

• All specifications are subject to change without notice.

## ELECTRICAL CHARACTERISTICS

Part No.	Inductance ( $\mu\text{H}$ )	Tolerance (%)	Test frequency (kHz)	DC resistance( $\text{m}\Omega$ )		Rated current(A)*	
				max.	typ.	Based on inductance change typ.	Based on temperature rise typ.
SPM6530T-R25M230	0.25	$\pm 20$	100	2.31	2.1	28.5	23
SPM6530T-R47M170	0.47	$\pm 20$	100	3.63	3.3	20.5	20
SPM6530T-R68M140	0.68	$\pm 20$	100	5.39	4.9	16.6	16
SPM6530T-1R0M120	1	$\pm 20$	100	7.81	7.1	14.1	13
SPM6530T-1R5M100	1.5	$\pm 20$	100	10.67	9.7	11.5	11
SPM6530T-2R2M	2.2	$\pm 20$	100	19	17.3	8.4	8.2
SPM6530T-3R3M	3.3	$\pm 20$	100	29.7	27	7.3	6.8
SPM6530T-4R7M	4.7	$\pm 20$	100	39.4	35.8	6.2	5.6

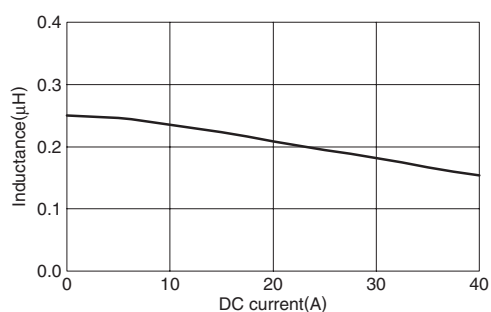
\* Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 20%, whichever is smaller.

- Operating temperature range: -40 to +125°C (Including self-temperature rise)
- The cleaning agent can not be used for these parts.

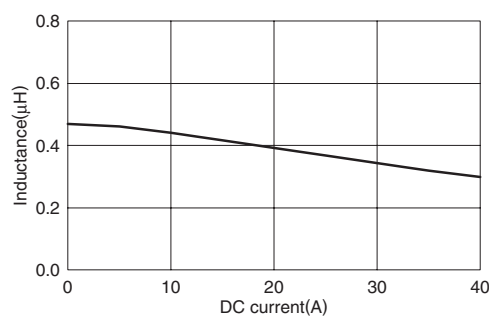
## TYPICAL ELECTRICAL CHARACTERISTICS

### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS

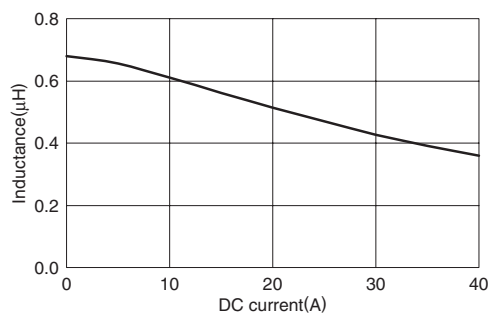
#### SPM6530T-R25M230



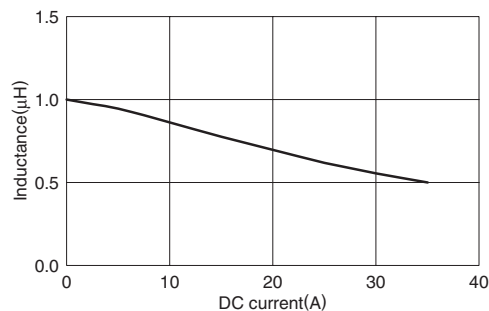
#### SPM6530T-R47M170



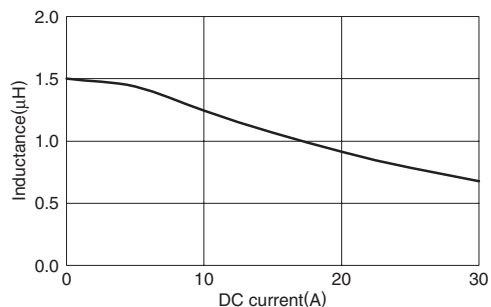
#### SPM6530T-R68M140



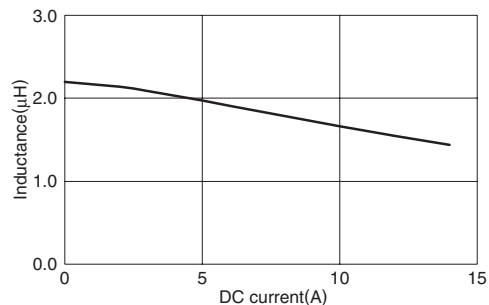
#### SPM6530T-1R0M120



#### SPM6530T-1R5M100



#### SPM6530T-2R2M

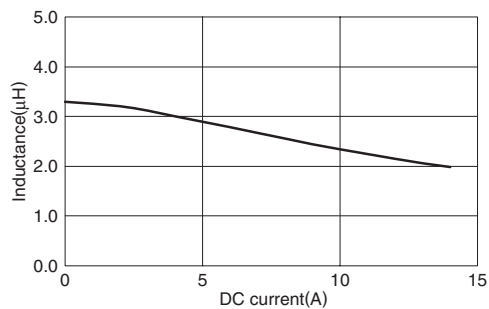


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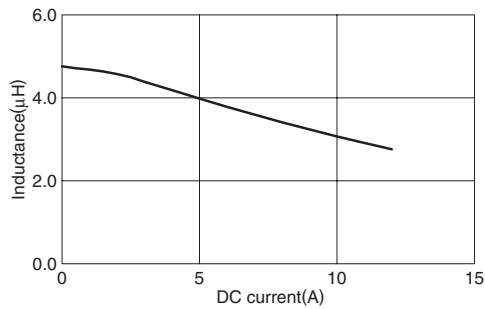
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#### INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS

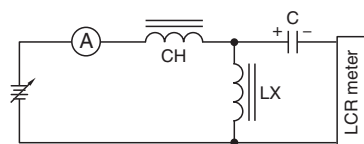
##### SPM6530T-3R3M



##### SPM6530T-4R7M

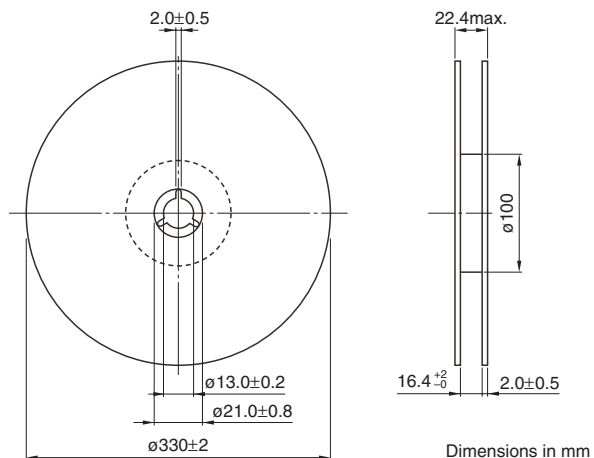


#### TEST CIRCUIT

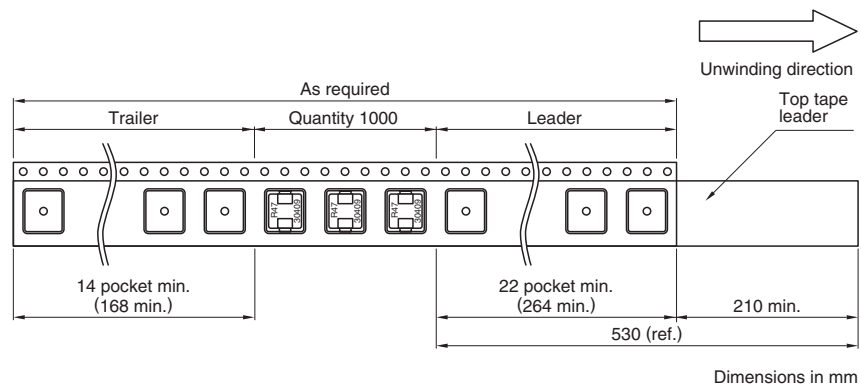


#### PACKAGING STYLES

##### REEL DIMENSIONS



#### TAPE DIMENSIONS



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