

RoHS  
Compliant



## Features

- Directly connected electrode on ferrite core
- Excellent property with high saturation for surface mounting

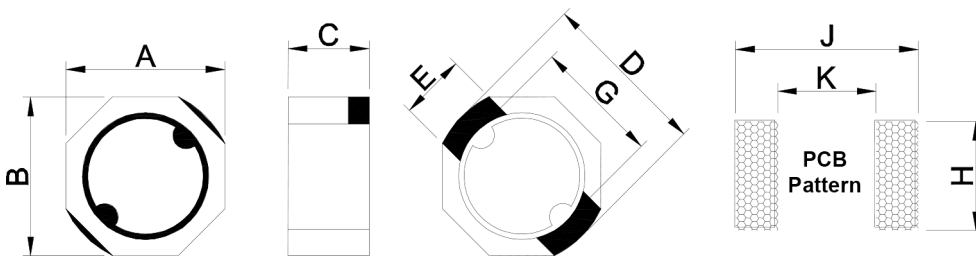
## Applications

- OA Equipment
- Notebook PCs
- LCD Monitor
- Portable Terminal Equipment
- DC/DC Converters, etc.
- Power Supply for VTR

## Characteristics

- Rated DC Current: The current when the inductance becomes 30% lower than its initial value.
- Operating temperature: -40°C to 125°C

## Shielded SMD Power Inductor

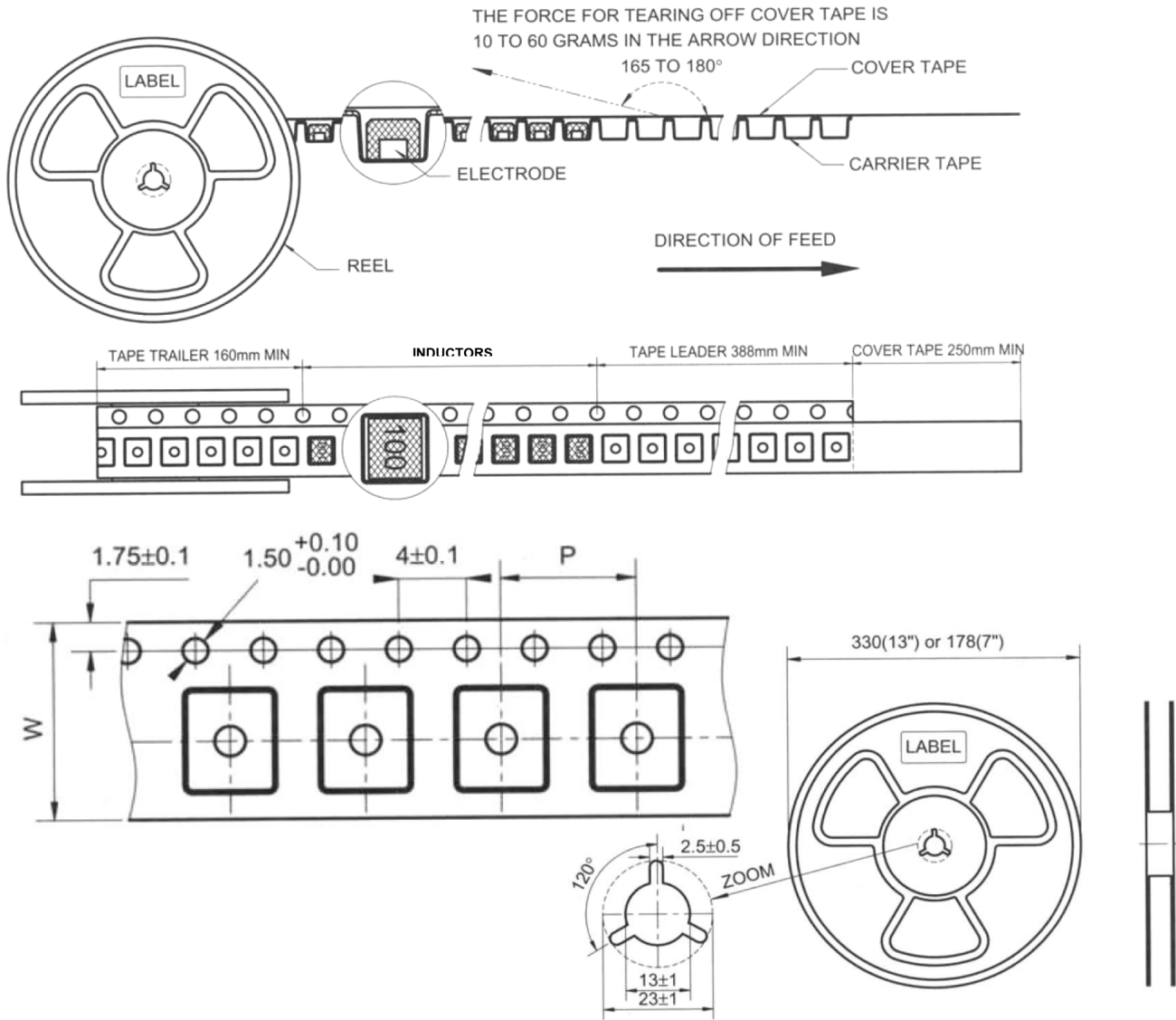


## Dimensions

Unit: mm

Case Code	A	B	C max.	D	E	G	H	J	K
0302	3.85±0.3	3.85±0.3	2	3.9±0.2	1.6	3.2	1.9	3	4.55
0603	5.90±0.2	5.90±0.2	3	6.4±0.3	2.4	4.7	2.7	4.4	6.5

## Tape and Reel specifications



Unit: mm

Case Code	Tape size		Parts Per Reel
	W	P	
0302	12	8	3500
0603	12	8	2000

## SMT Power Inductor Environmental Specifications

### General

Items	Specifications
Shelf Storage conditions	Temperature range: 15°C to 28°C ; Humidity: <80% relative humidity. Recommended product should be used within one year from the time of delivery.

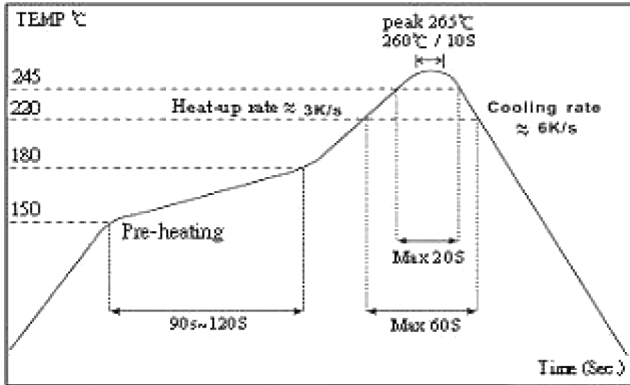
### Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature 85±2°C, Time: 48±2 hours, Tested after 1 hour at room temperature.
Low temperature Storage test		Temperature -25±2°C, Time: 48±2 hours, Tested after 1 hour at room temperature.
Humidity test		Temperature 40±2°C, 90% to 95% relative humidity Time: 96±2 hours Tested after 1 hour at room temperature.
Thermal shock test		First -25°C 30 minutes then 25°C 10 minutes last 85°C 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature.

### Mechanical test

Test Items	Specifications	Test Conditions / Test Methods
Solderability test	Terminal area must have 90% minimum solder coverage.	Product with Lead-free terminal: Dip pads in flux then dip in solder pot at 245±5°C for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130°C to 150°C. Immersing to 260±5°C for 10 seconds.
Vibration test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Apply frequency 10Hz to 55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
Shock resistance		Drop down with 981m/s <sup>2</sup> (100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

## The condition of reflow (recommendation)



## Electrical Characteristics

Part No	Case Code	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
MP002883	0302	2.2	30%	100kHz, 0.25V	0.058	1.5
MP002884	0603	10	20%	1kHz, 0.25V	0.065	1.45

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