

Shielded SMD Power Inductors **multicomp**^{PRO}

**RoHS
Compliant**



Features

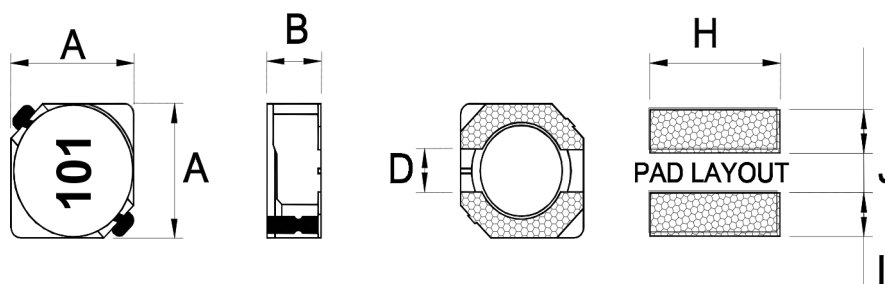
- Directly connected electrode on ferrite core
- Available in magnetically shielded
- Low DC resistance
- Suitable for large current
- Available on tape and reel for auto surface mounting

Applications

- Power Supply For VTRs
- OA Equipment
- Notebook PCs
- Portable Communication Equipment
- DC/DC Converters, etc.

Characteristics

- Rated DC Current: The current when the inductance becomes 35% lower than its initial value or the current when the temperature of coil increases to $\Delta 40^{\circ}\text{C}$. The smaller one is defined as Rated DC
- Current. ($T_a=25^{\circ}\text{C}$)
- Operating temperature range: -40°C to 125°C



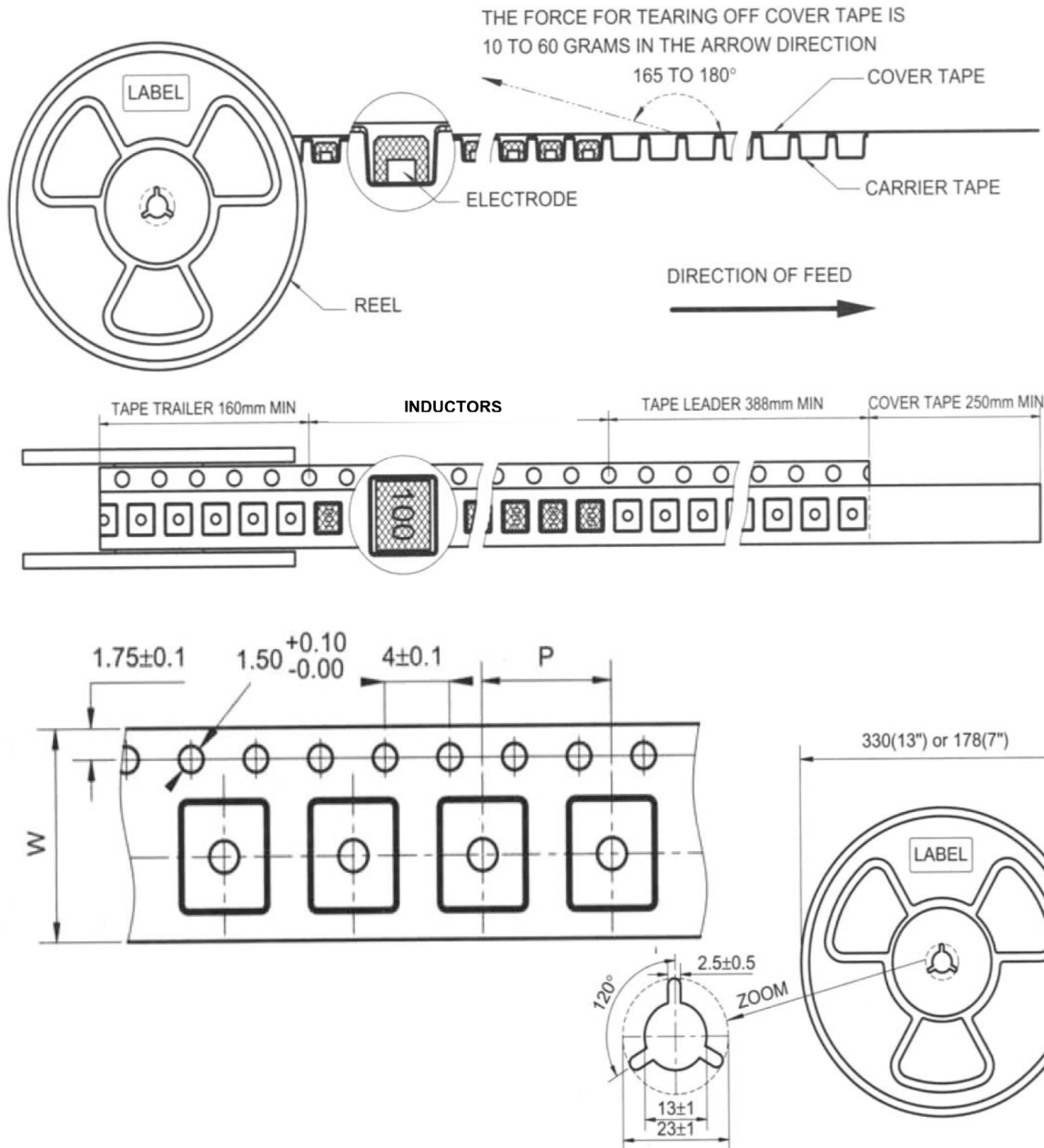
Dimensions

Unit: mm

Code	A	B max.	D	H	I	J
28	4.7 \pm 0.3	3	1.5	5.3	1.9	1.5
38	6.7 \pm 0.3	4	2	7.3	2.65	2

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Tape and Reel specifications



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Unit: mm

Code	Tape size		Parts Per Reel
	W	P	13"
28	12	8	2000
38	16	12	1000

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

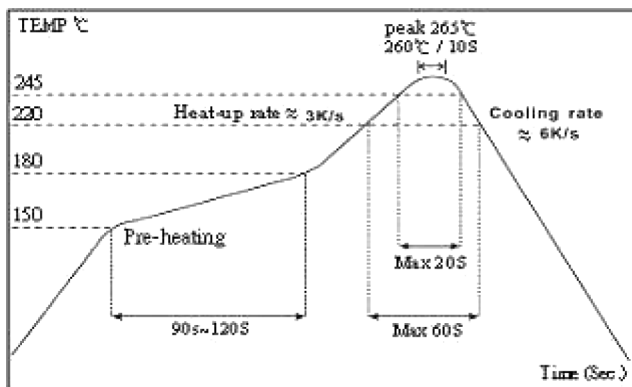
Test Items	Specifications	Test Conditions / Test Methods
Solderability test	Terminal area must have 90% minimum solder coverage.	Dip pads in flux then dip in solder pot (SnCuNi) at 245±5°C for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole 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 ² (100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

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Electrical Characteristics

Part No	Code	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
MP002873	28	3.3	30%	100kHz, 0.1V	0.049	1.57
MP002874		10	20%		0.128	1
MP002875		18			0.166	0.72
MP002876	38	10		10kHz, 0.1V	0.038	2
MP002877		82	0.324		0.7	
MP002878		100	0.368		0.65	

The condition of reflow (recommendation)



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