Semi-shielded SMD Power Inductors

multicomp PRO

RoHS Compliant

Features

- Small and Low profile inductor
- It corresponds to high current
- Shield structure magnetically
- Strong structure against a shock-proof

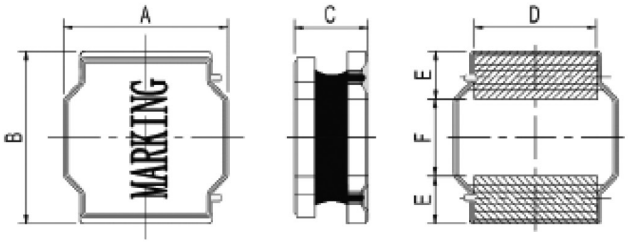
Applications

- LCD Display etc.
- For Small DC to DC Converters
- PDA.

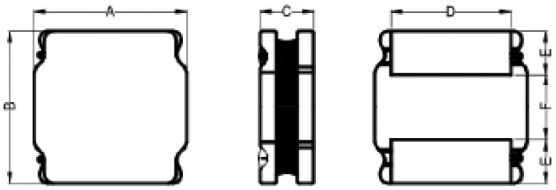
Characteristics

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

Case Code-0418



Case Code-0315

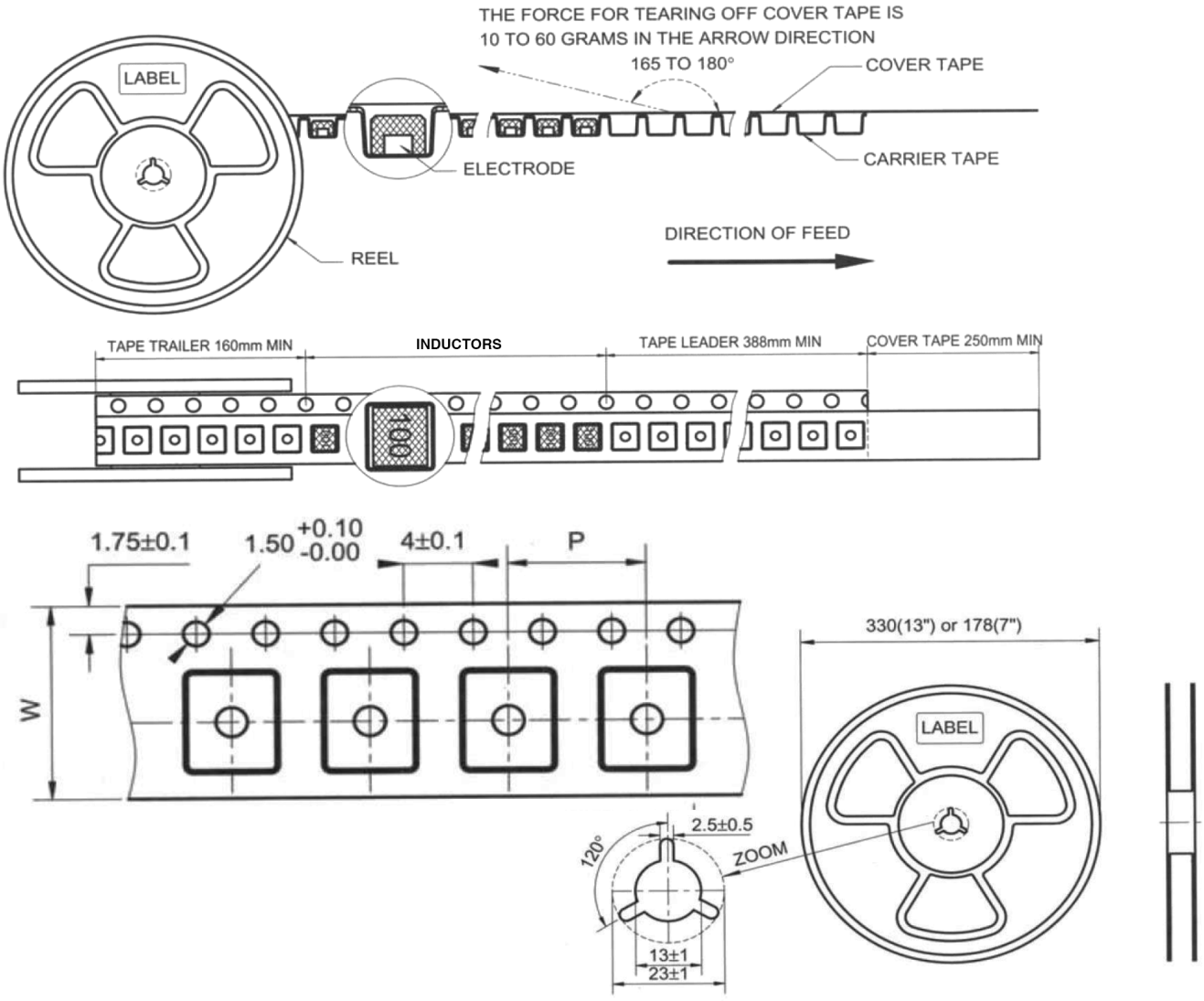


Dimensions

Unit: mm

Case Code	A	B	C	D	E	F	H	J	K
0315	3±0.2	3±0.2	1.5 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3	0.8
0418	4±0.2	4±0.2	1.85 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4	1.2

Tape and Reel specifications



Unit: mm

Case Code	Tape size		Parts Per Reel	
	W	P	7″	13″
0315	8	4	2000	-
0418	12	8	-	3000

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.

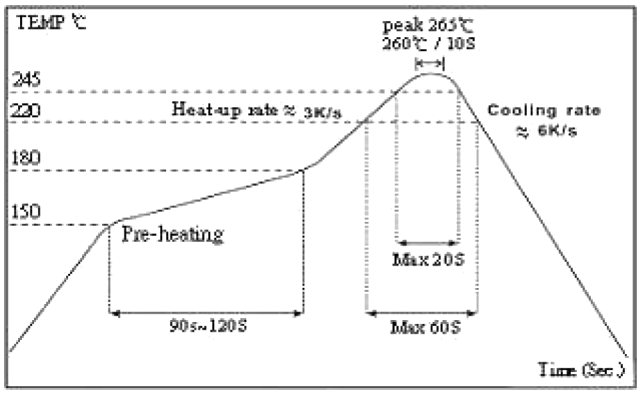
Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. ΔL/L≤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. ΔL/L≤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.

The condition of reflow (recommendation)



Electrical Characteristics

Part No	Case Code	L (µH)	Tolerance	Test Condition	DCR (Ω) ±max.	IDC (A) max.
MP002773	0315	4.7	20%	100kHz, 0.25V	0.125	1.1
MP002774		10		1kHz, 0.25V	0.25	0.72
MP002775		22			0.46	0.52
MP002776		47			1.2	0.32
MP002777	0418	2.2		100kHz, 0.25V	0.042	3
MP002778		3.3			0.07	2.45
MP002779		4.7			0.09	2
MP002780		47		1kHz, 0.25V	0.85	0.6
MP002781		100			1.5	0.4