

Unshielded SMD Power Inductors **multicomp**PRO

**RoHS
Compliant**



Features

- High power, High saturation inductors
- Ideal inductors for DC-DC converters in notebook computer, PDAs, Step-up or step-down converters, flash memory programmers, etc.
- Case code 1608 used ceramic base with gold-plating & others used LCP plastic base

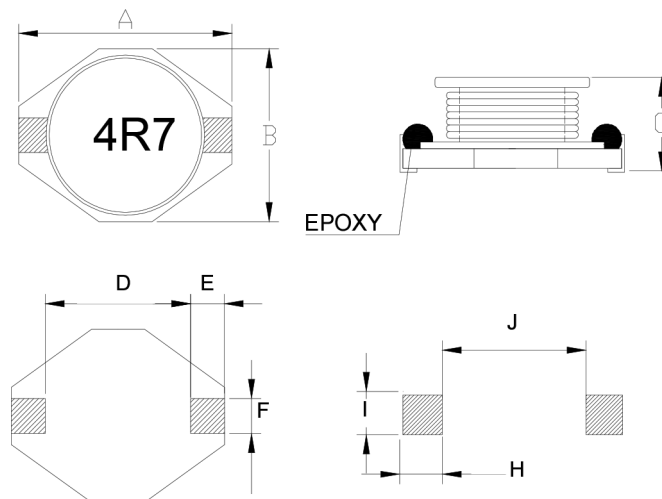
Applications

- Portable Telephones
- Personal Computers
- DC/DC Converters, etc.
- Other Various Electronic Appliances

Characteristics

- Saturation Rated Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range: -40°C to 125°C

SMD Power Inductor



Dimensions

Unit: mm

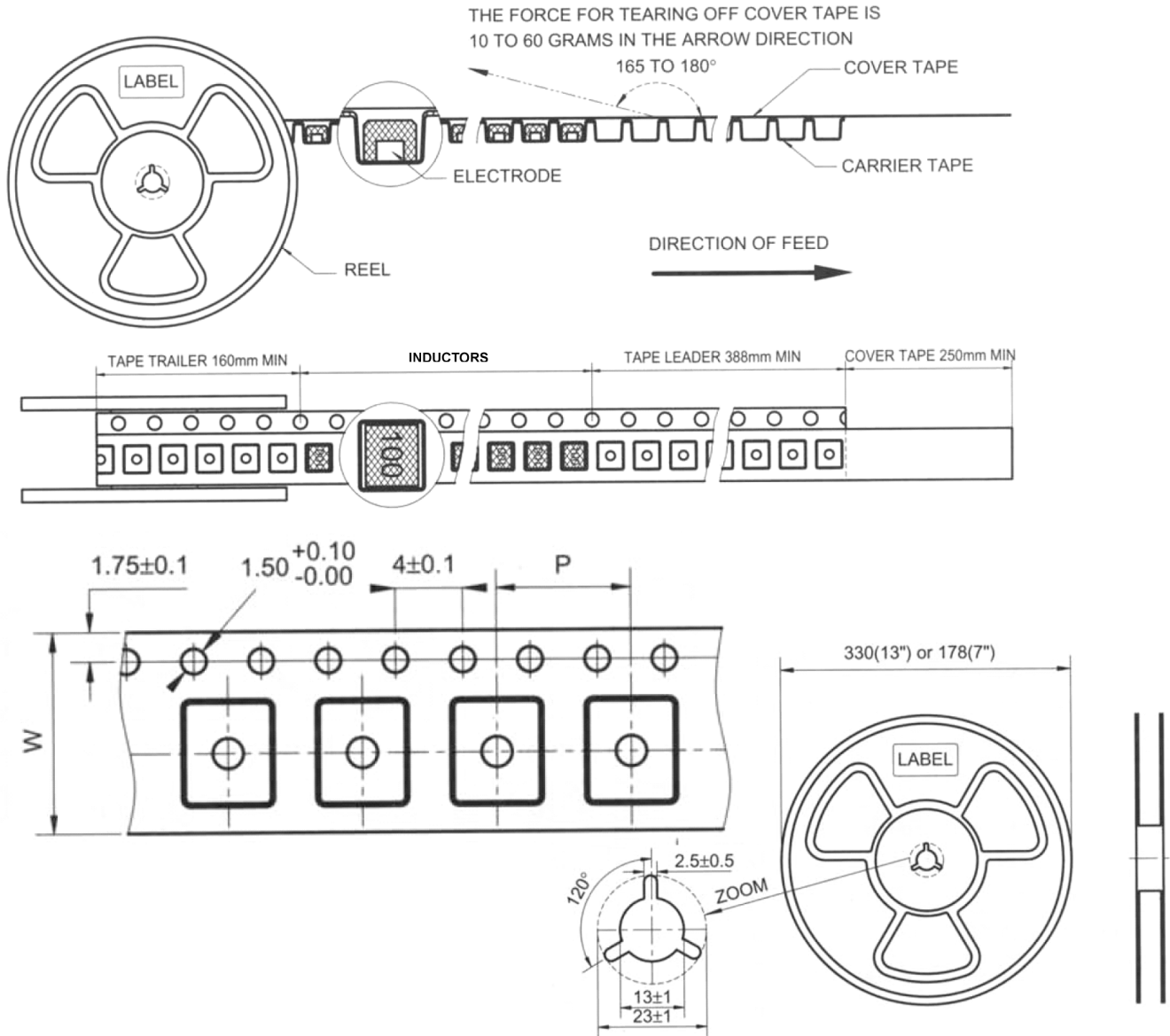
Case Code	A max.	B max.	C max.	D	E	F	H	I	J
1608	6.60	4.45	2.92	4.32	1.02	1.27	1.4	3.56	4.06
3316	12.95	9.4	5.21	7.62	2.54	2.54	2.79	2.92	7.37
5022	18.54	15.24	7.11	12.7	2.54	2.54	2.79	2.92	12.45

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicompPRO

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Tape and Reel specifications



Unit: mm

Case Code	Tape size		Parts Per Reel
	W	P	13"
1608	16	8	2000
3316	24	12	1000
5022	32	20	250

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

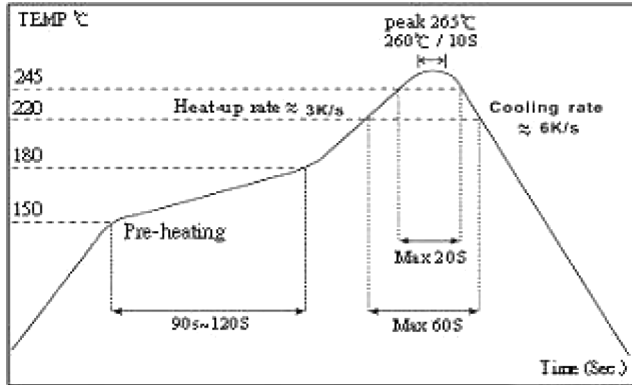
Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature 85 $\pm$ 2°C, Time: 96 $\pm$ 2 hours, Tested after 1 hour at room temperature.
Low temperature Storage test		Temperature -25 $\pm$ 2°C, Time: 96 $\pm$ 2 hours, Tested after 1 hour at room temperature.
Humidity test		Temperature 40 $\pm$ 2°C, 90% to 95% relative humidity Time: 96 $\pm$ 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
Solder ability 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 $\pm$ 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 $\pm$ 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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The condition of reflow (recommendation)



Electrical Characteristics

Part No	Case Code	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
MP002793	1608	2.2	20%	100kHz, 0.1V	0.07	2.3
MP002794		4.7			0.09	1.5
MP002795		6.8			0.13	1.2
MP002796		10			0.16	1.1
MP002797		22			0.37	0.70
MP002798		150			2	0.27
MP002799		470			6	0.14
MP002800		1000			13.8	0.10
MP002801	3316	33			0.1	2
MP002802		100			0.28	1.25
MP002803		150			0.4	1.05
MP002804		330			1.02	0.62
MP002805		680			2.02	0.42
MP002806		1000			3	0.35
MP002807	5022	15			0.036	8
MP002808		100			0.19	3
MP002809		470			0.85	1.4
MP002810		1000			1.8	1

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