

RoHS
Compliant



Features

- Compact, low profile with low DCR and large current
- With magnetically shielded against radiation
- Flat bottom surface allows reliable mounting onto the board
- Available on tape and reel for auto surface mounting

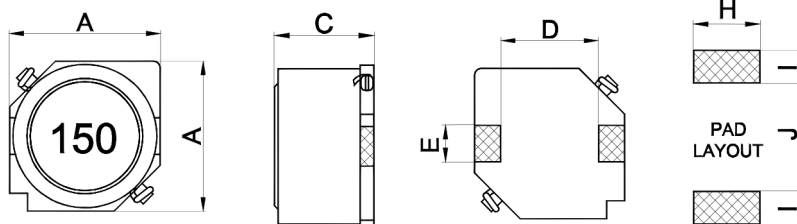
Applications

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

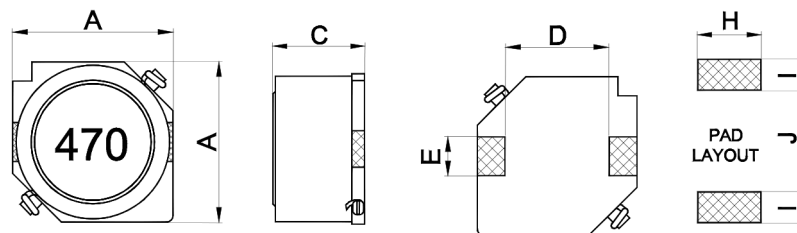
Characteristics

- Saturation Rated Current (I_{sat}): The current when the inductance becomes 30% lower than its nominal value. ($T_a=25^\circ\text{C}$)
- Temperature Rated Current (I_{rms}): The actual current when the temperature of coil becomes to $\Delta 40^\circ\text{C}$. ($T_a=25^\circ\text{C}$)
- Operating temperature range: -40°C to 125°C

Case Code-0745 / 1045



Case Code-0628 / 1255 / 1275



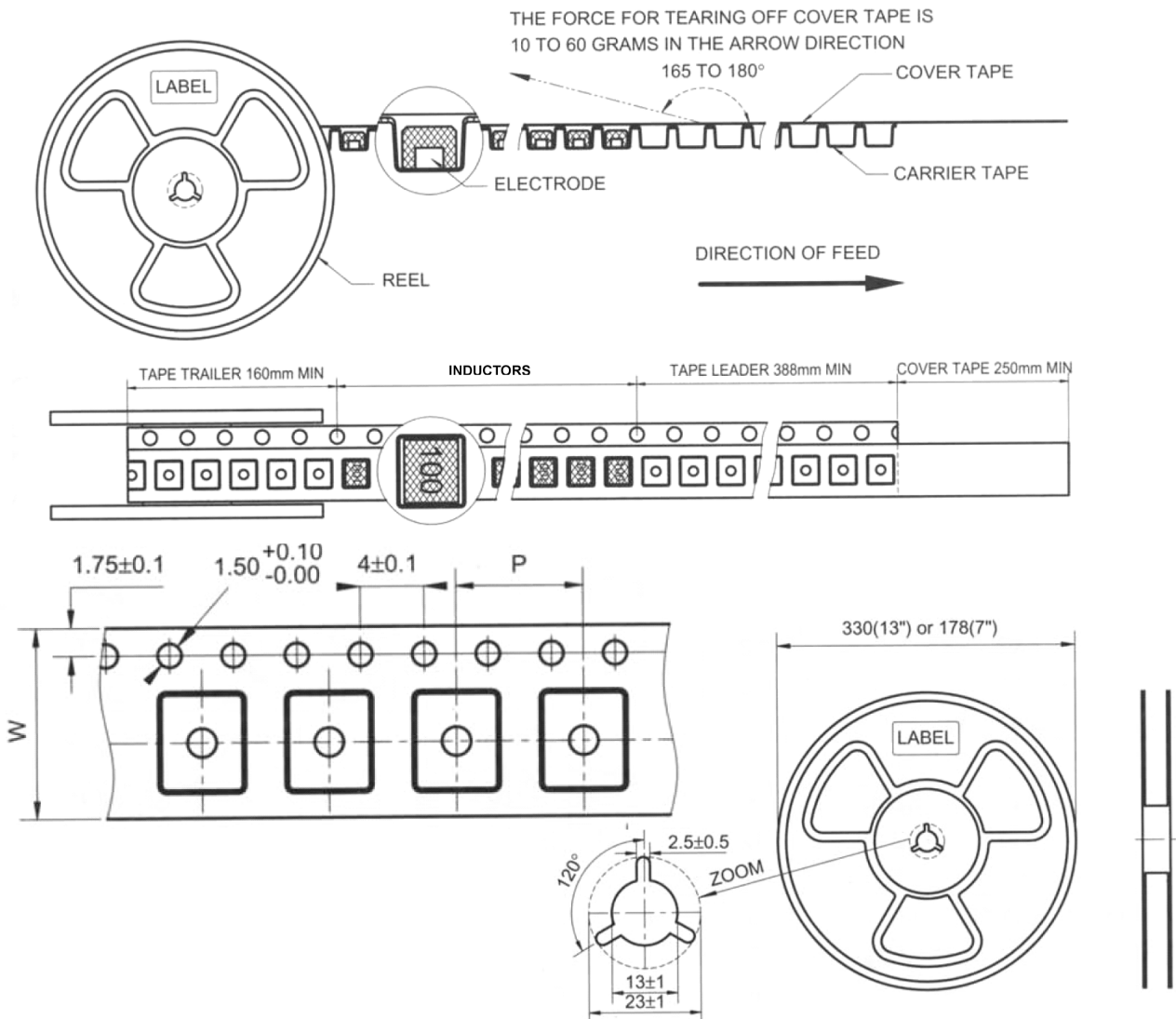
Shielded SMD Power Inductors **multicomp** PRO

Dimensions

Unit:mm

Case Code	A	C	D	E	H	I	J
0628	6.±0.2	2.8±0.2	4	2	2.2	1.5	4
0745	7.±0.2	4.5±0.3	4	2	2.2	1.5	4
1045	10.1±0.3	4.5±0.3	6	3	3.2	2.5	5.6
1255	12.5±0.3	5.5±0.35	8.6	3	3.2	2.5	8.6
1275	12.5±0.3	7.5±0.35	8.6	3	3.2	2.5	8.6

Tape and Reel specifications



Case Code	Tape size		Parts Per Reel
	W	P	13"
0628	16	12	1000
0745			
1045	24	16	750
1255			350
1275			

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.

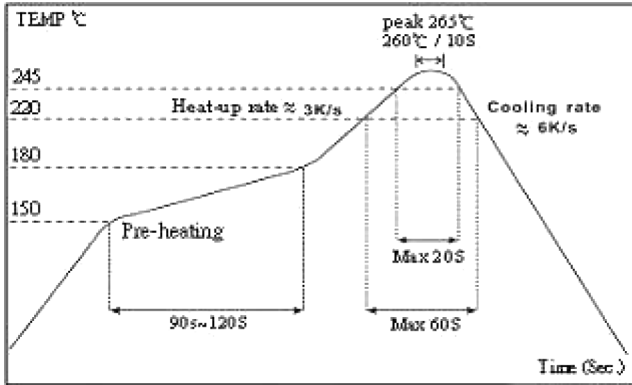
Environmental test

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 -40±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 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 (μ H)	Tolerance	Test Condition	DCR (Ω) \pm 20%	IDC (A) max.	
						I sat	I rms
MP002859	0628	6.8	20%	1kHz, 0.5V	0.052	-	1.5
MP002860	0745	3.3			0.02	-	2.5
MP002861	1045	22			0.059	-	2.1
MP002862	1255	68			0.083	1.3	2.2
MP002863		100			0.117	1.1	1.8
MP002864	1275	10			0.016	5.5	4.4
MP002865		47			0.053	2.7	3

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