●FEATURE

1. High current and Low DCR
2. Compact and Thin
3. High heat resistance, ideal for reflow soldering
4. High reliability



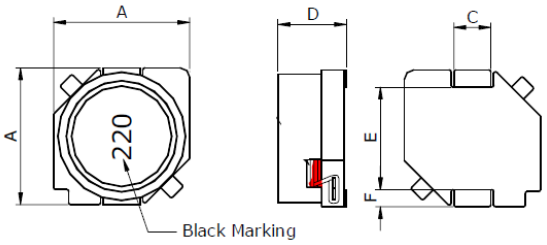
●APPLICATION

1. Portable telephone, Personal Computer
2. Hard Disk drives, and other electronic equipment

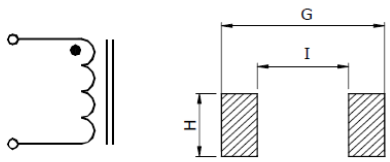
●ORDERING INFORMATION

WSA6025	-1R0	T
PN	Inductance	M: ±20%

●SHAPE AND DIMENSION



●SCHEMATICS AND LAND PATTERNS(mm)



●SPECIFICATION

Dimension in mm

TYPE	A	D	C	E	F	G	I	H
WSA6025	6.0±0.20	2.50±0.20	2.00±0.10	4.0	0.90	5.50	4.00	4.00
WSA6028	6.0±0.20	2.80±0.20	2.00±0.10	4.0	0.90	5.50	4.00	2.20
WSA7028	7.0±0.20	2.80±0.20	2.00±0.10	4.9	0.90	6.40	4.90	2.20
WSA7030	7.0±0.20	3.00±0.20	2.00±0.10	4.9	0.90	6.40	4.90	2.20
WSA7032	7.0±0.20	3.20±0.20	2.00±0.10	4.9	0.90	6.40	4.90	2.20
WSA7045	7.0±0.20	4.50±0.30	2.00±0.10	4.9	0.90	6.40	4.90	2.20
WSA10145	10.1±0.20	4.50±0.30	3.00±0.10	5.0	2.00	8.30	5.80	2.20
WSA12555	12.5±0.20	5.50±0.30	3.00±0.10	8.6	2.00	11.10	8.60	3.20
WSA12565	12.5±0.20	6.50±0.30	3.00±0.10	8.6	2.00	11.10	8.60	3.20
WSA12575	12.5±0.20	7.50±0.30	3.00±0.10	8.6	2.00	11.10	8.60	3.20

Note1. Measurement frequency of Inductance value : at 1kHz, 0.1V

Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. IDC : This indicates the value of current when the inductances is 30% lower than its initial value at D.C. superimposition or D.C. current when at Δt=40°C,which is lower.(Ta=20°C)

Note4. Inductance tolerance: M: ±20%

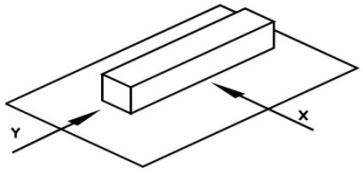
●ELECTRICAL CHARACTERISTICS

PART NUMBER	Inductance (uH)	D.C.R.(Ω±20%)/Rated D.C. Current(A)				
		WSA6025	WSA6028	WSA7028	WSA7030	WSA7032
1R0	1.0					
2R0	2.0					
2R7	2.7					
3R0	3.0					
3R3	3.3			0.037 / 1.60	0.023 / 1.80	0.023 / 1.90
3R9	3.9					
4R7	4.7	0.0306 / 1.50	0.0284 / 1.60	0.045 / 1.50	0.036 / 1.60	0.036 / 1.70
5R6	5.6					
6R3	6.3					
6R8	6.8	0.0442 / 1.30	0.0354 / 1.50	0.059 / 1.30	0.041 / 1.50	0.041 / 1.60
8R0	8.0					
8R2	8.2					
100	10	0.0573 / 1.00	0.0532 / 1.30	0.083 / 1.10	0.053 / 1.30	0.053 / 1.40
120	12					
150	15	0.085 / 0.88	0.0745 / 1.00	0.130 / 0.88	0.084 / 1.00	0.075 / 1.10
180	18					
220	22	0.122 / 0.73	0.1040 / 0.77	0.180 / 0.75	0.110 / 0.86	0.110 / 0.96
270	27					
330	33	0.180 / 0.59	0.1480 / 0.69	0.240 / 0.65	0.160 / 0.65	0.160 / 0.75
390	39					
470	47	0.240 / 0.48	0.2100 / 0.59	0.340 / 0.54	0.240 / 0.57	0.240 / 0.67
560	56					
680	68	0.370 / 0.42	0.2900 / 0.50		0.310 / 0.49	0.310 / 0.59
820	82					
101	100	0.500 / 0.33	0.4300 / 0.42		0.450 / 0.35	0.450 / 0.45
121	120					
151	150					0.650 / 0.37
181	180					
221	220					1.050 / 0.29
331	330					
471	470					2.050 / 0.20
681	680					3.150 / 0.16
821	820					
102	1000					4.780 / 0.13

PART NUMBER	Inductance (uH)	D.C.R.(Ω±20%)/Rated D.C. Current(A)				
		WSA7045	WSA10145	WSA12555	WSA12565	WSA12575
1R2	1.2					0.0069 / 8.20
2R0	2.0				0.0117 / 6.20	
2R7	2.7					0.0094 / 7.00
3R3	3.3	0.020 / 2.50				
3R9	3.9					0.0104 / 6.70
4R2	4.2				0.0150 / 5.50	
4R7	4.7	0.030 / 2.00				
5R6	5.6					0.0116 / 6.30
6R0	6.0			0.0164 / 3.60		
6R8	6.8	0.039 / 1.70				0.0131 / 5.90
7R0	7.0				0.0177 / 5.00	
8R2	8.2					
100	10	0.036 / 1.30	0.0384 / 2.50	0.0215 / 3.40	0.0202 / 4.80	0.0156 / 5.40
120	12					
150	15	0.052 / 1.10	0.0472 / 2.20	0.0259 / 2.80	0.0237 / 4.20	0.0184 / 4.70
180	18					
220	22	0.061 / 0.90	0.0591 / 1.90	0.0338 / 2.30	0.0316 / 3.50	0.0263 / 4.00
270	27					
330	33	0.096 / 0.82	0.0815 / 1.60	0.0415 / 1.90	0.0406 / 2.80	0.0395 / 3.20
390	39					
470	47	0.125 / 0.75	0.1000 / 1.40	0.0618 / 1.60	0.0578 / 2.40	0.0528 / 2.70
560	56					
680	68	0.175 / 0.60	0.1400 / 1.20	0.0832 / 1.30	0.0787 / 2.00	0.0778 / 2.00
820	82					
101	100	0.250 / 0.50	0.2000 / 1.00	0.1170 / 1.10	0.1230 / 1.60	0.1250 / 1.90
121	120					
151	150	0.340 / 0.40	0.3500 / 0.79	0.1900 / 0.88		0.1750 / 1.50
181	180					
221	220	0.520 / 0.33	0.4700 / 0.65	0.2700 / 0.72	0.2730 / 1.00	0.2580 / 1.30
331	330	0.740 / 0.25	0.6800 / 0.54	0.4100 / 0.59		
471	470	1.050 / 0.22	1.0300 / 0.47	0.5200 / 0.49		
681	680	1.480 / 0.20	1.5000 / 0.38	0.7600 / 0.43		
821	820					
102	1000	2.280 / 0.14	2.8000 / 0.29	1.1200 / 0.34		
152	1500		3.4000 / 0.22	1.7300 / 0.29		

●GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 85°C (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions. Terminal should not peel off. (refer to figure at right) 0.5kg



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/°C (-25~+80°C).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within ±5%, after 96 hours in 90~95% relative humidity at 40 ±2°C and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within ±5%, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within ±5%, after being dropped once with 981m/s2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds.
11. Storage environment

    Storage condition:

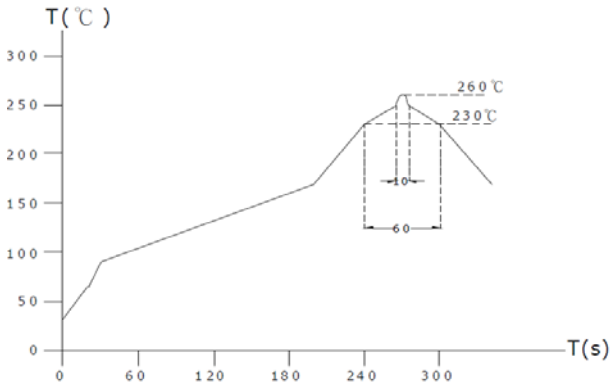
    Temperature Range: 10°C ~ 35°C (Generally: 21°C ~ 31°C)

    Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%)

    Transportation condition:

    Temperature Range: -35°C ~ 85°C, Humidity Range: 50% ~ 95% RH
12. Use components within 6 months. If 6 months or more have elapsed, check soldarability before use.
13. Reflow profile recommend:

Lead - free heat endurance test



Lead-free the recommended reflow condition

