



● FEATURE

1. Shielded construction

● APPLICATION

1. Notebook, server application,
2. High current power supplier



● ORDERING INFORMATION

WCH1093

PN

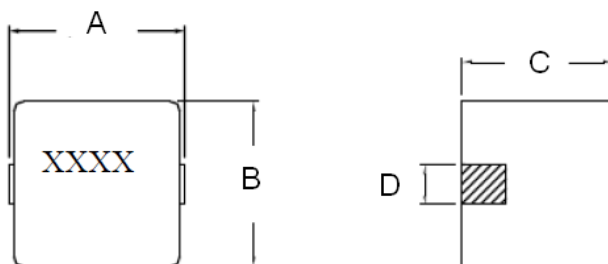
-R22

Inductance

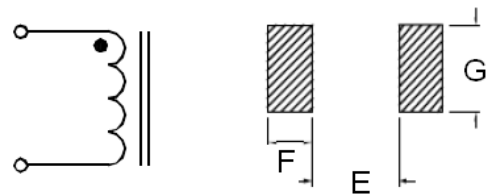
T

M :±20%

● SHAPE AND DIMENSION



● SCHEMATICS AND LAND PATTERNS(mm)



● SPCIFICATION

Dimension in m/m (tolerance : ±0.40mm)

TYPE	A	B	C	D	E	F	G
WCH1093	10.9	10.0	9.3	3.0	6.9	2.3	3.6
WCH1295	12.1	11.4	9.5	3.5	7.0	2.9	5.4

Note1. Measurement frequency of Inductance value : at 100kHz

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

Note3. Isat: DC current at which the inductance drops 30%(typ) from its value without current

Note4. Irms: Average current for 40°C temperature rise from 25°C ambient (typical)

Note5. Inductance tolerance: M: ±20%



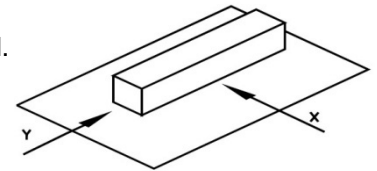
●ELECTRICAL CHARACTERISTICS

<b>PART NUMBER</b>	<b>L (<math>\mu</math>H)</b>	<b>RDC (m<math>\Omega</math>) <math>\pm</math>10%</b>	<b>SRF (MHz) typ.</b>	<b>Isat (A)</b>	<b>Irms (A)</b>
WCH1093-R22M	0.22 $\pm$ 20%	0.60	300	60	21.5
WCH1093-R33M	0.33 $\pm$ 20%	0.60	250	55	21.5
WCH1093-R47M	0.47 $\pm$ 20%	0.80	160	47	20.5
WCH1093-R68M	0.68 $\pm$ 20%	1.35	140	38	20.5
WCH1093-R82M	0.82 $\pm$ 20%	1.35	120	36	20
WCH1093-1R0M	1.0 $\pm$ 20%	1.35	100	27.5	20
WCH1093-1R5M	1.5 $\pm$ 20%	2.50	78	27	18
WCH1093-2R2M	2.2 $\pm$ 20%	3.70	80	22	16.5
WCH1093-3R3M	3.3 $\pm$ 20%	5.40	51	15.5	14
WCH1093-4R7M	4.7 $\pm$ 20%	8.20	49	15	13
WCH1093-6R8M	6.8 $\pm$ 20%	13.2	40	11	11.5
WCH1093-8R2M	8.2 $\pm$ 20%	13.2	36	8	11.5
WCH1093-100M	10 $\pm$ 20%	20.7	35	8	9
WCH1295-R22M	0.22 $\pm$ 20%	0.53	280	60	27
WCH1295-R33M	0.33 $\pm$ 20%	0.53	214	55	27
WCH1295-R47M	0.47 $\pm$ 20%	0.72	138	48	26
WCH1295-R68M	0.68 $\pm$ 20%	0.72	108	38	26
WCH1295-R82M	0.82 $\pm$ 20%	1.17	99	36	24
WCH1295-1R0M	1.0 $\pm$ 20%	1.17	96	32	24
WCH1295-1R5M	1.5 $\pm$ 20%	2.10	92	27	19.5
WCH1295-2R2M	2.2 $\pm$ 20%	3.05	64	23	18
WCH1295-3R3M	3.3 $\pm$ 20%	4.40	44	17	17
WCH1295-4R7M	4.7 $\pm$ 20%	6.35	43	17	15.5
WCH1295-6R8M	6.8 $\pm$ 20%	8.98	42	13	13
WCH1295-8R2M	8.2 $\pm$ 20%	9.90	34	12	13
WCH1295-100M	10 $\pm$ 20%	14.4	29	10	9



●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)
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%)

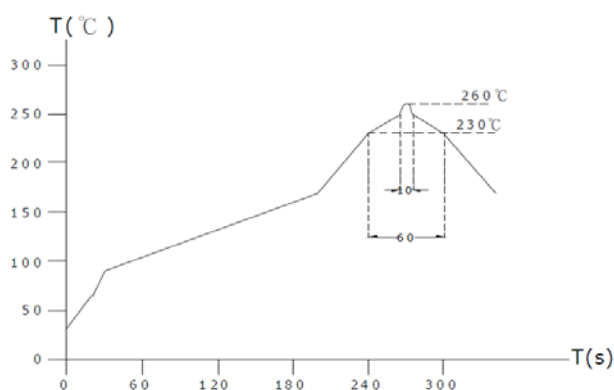
Transportation condition:

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 solderability before use.

13. Reflow profile recommend:

Lead – free heat endurance test



Lead-free the recommended reflow condition

