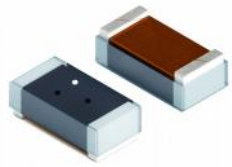
TCFL1008CF

Ceramic Chip Inductor (2.92 x 2.79 x 2.03 mm)



FEATURES

- SMD Package
- High SRF
- High Frequency
- High Q value

SPECIFICATION

Part Number	L (nH)/@MHz	Q min /@MHz	SRF(MHz) min	DCR (Ω) Max	IDC (mA) Max
TCFL1008CF-10N_	10 / 50	50 / 500	4100	0.08	1000
TCFL1008CF-12N_	12 / 50	50 / 500	3300	0.09	1000
TCFL1008CF-15N_	15 / 50	50 / 500	2500	0.16	1000
TCFL1008CF-18N_	18 / 50	50 / 350	2500	0.11	1000
TCFL1008CF-22N_	22 / 50	55 / 350	2400	0.12	1000
TCFL1008CF-27N_	27 / 50	50 / 350	1600	0.13	1000
TCFL1008CF-33N_	33 / 50	60 / 350	1600	0.14	1000
TCFL1008CF-39N_	39 / 50	60 / 350	1500	0.15	1000
TCFL1008CF-47N_	47 / 50	65 / 350	1500	0.16	1000
TCFL1008CF-56N_	56 / 50	65 / 350	1300	0.18	1000
TCFL1008CF-68N_	68 / 50	65 / 350	1300	0.20	1000
TCFL1008CF-82N_	82 / 50	60 / 350	1000	0.22	1000
TCFL1008CF-R10_	100 / 25	60 / 350	1000	0.56	650
TCFL1008CF-R12_	120 / 25	60 / 350	950	0.63	650
TCFL1008CF-R15_	150 / 25	45 / 100	850	0.70	580
TCFL1008CF-R18_	180 / 25	45 / 100	750	0.77	620
TCFL1008CF-R22_	220 / 25	45 / 100	700	0.84	500
TCFL1008CF-R27_	270 / 25	45 / 100	600	0.91	500
TCFL1008CF-R33_	330 / 25	45 / 100	570	1.05	450
TCFL1008CF-R39_	390 / 25	45 / 100	500	1.12	470
TCFL1008CF-R47_	470 / 25	45 / 100	450	1.19	470
TCFL1008CF-R56_	560 / 25	45 / 100	415	1.33	400
TCFL1008CF-R62_	620 / 25	45 / 100	375	1.40	300
TCFL1008CF-R68_	680 / 25	45 / 100	375	1.47	400
TCFL1008CF-R75_	750 / 25	45 / 100	360	1.54	360
TCFL1008CF-R82_	820 / 25	45 / 100	350	1.61	400
TCFL1008CF-R91_	910 / 25	35 / 50	320	1.68	380
TCFL1008CF-1R0_	1000 / 25	35 / 50	290	1.75	370
TCFL1008CF-1R2_	1200 / 7.9	30 / 50	250	2.00	310
TCFL1008CF-1R5_	1500 / 7.9	28 / 50	200	2.30	330
TCFL1008CF-1R8_	1800 / 7.9	28 / 50	160	2.60	300
TCFL1008CF-2R2_	2200 / 7.9	28 / 50	160	2.80	280
TCFL1008CF-2R7_	2700 / 7.9	22 / 25	135	3.20	290
TCFL1008CF-3R3_	3300 / 7.9	22 / 25	110	3.40	290
TCFL1008CF-3R9_	3900 / 7.9	20 / 25	100	3.60	260
TCFL1008CF-4R7_	4700 / 7.9	20 / 25	90	4.00	260
TCFL1008CF-5R6_	5600 / 7.9	18 / 7.9	40	4.20	240
TCFL1008CF-6R8_	6800 / 7.9	18 / 7.9	40	4.90	200
TCFL1008CF-8R2_	8200 / 7.9	18 / 7.9	25	6.00	170
TCFL1008CF-100_	10000 / 2.5	18 / 7.9	25	8.00	150

- Specifications are measured using HP E4991B
- Inductance tolerance: Letter at end of part number: G = ±2% ; J = ±5% ; K = ±10%

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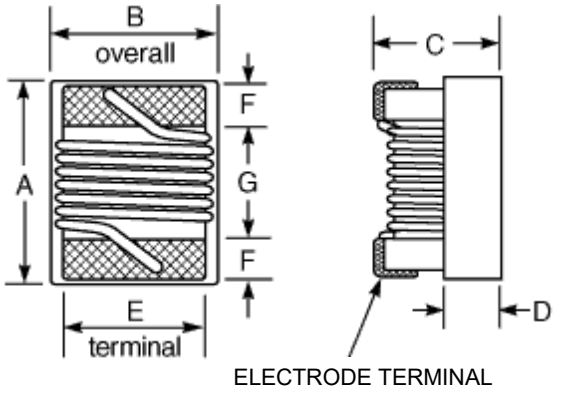
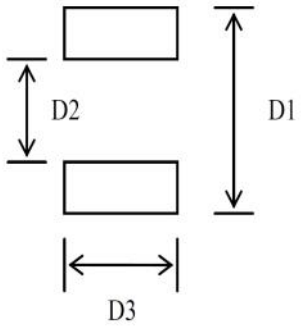
DIMENSIONS

Unit: mm

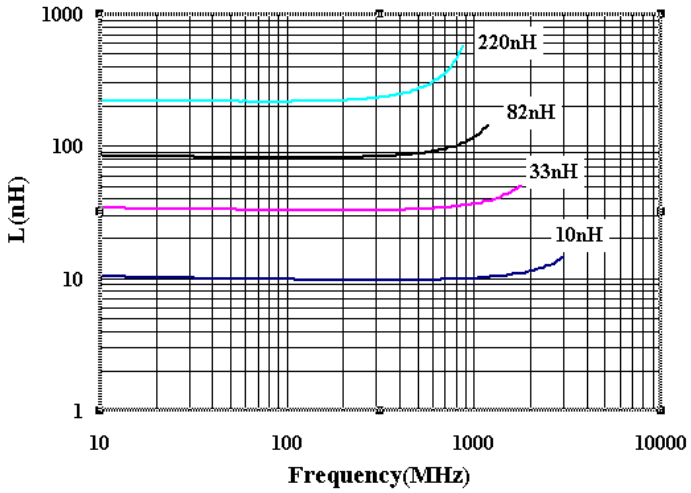


SOLDER PATTERN

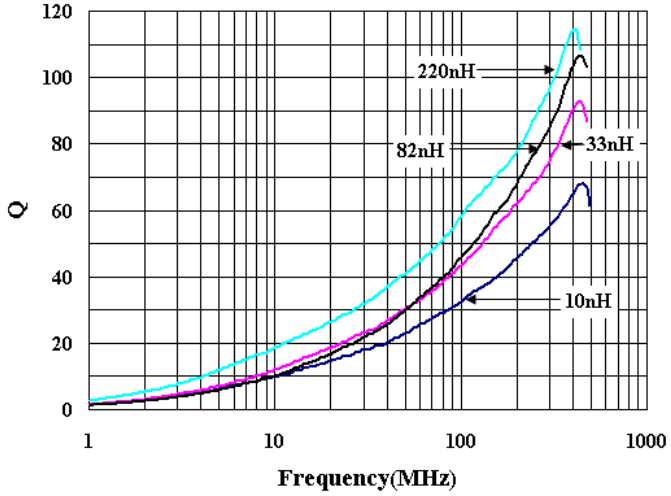


	A	B	C	D	F	G	D1	D2	D3
mm	2.92 Max	2.79 Max	2.03 Max	1.30	0.55	1.60	3.30	1.27	2.90

L vs FREQUENCY



Q vs FREQUENCY



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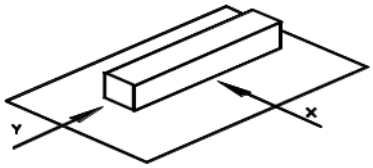
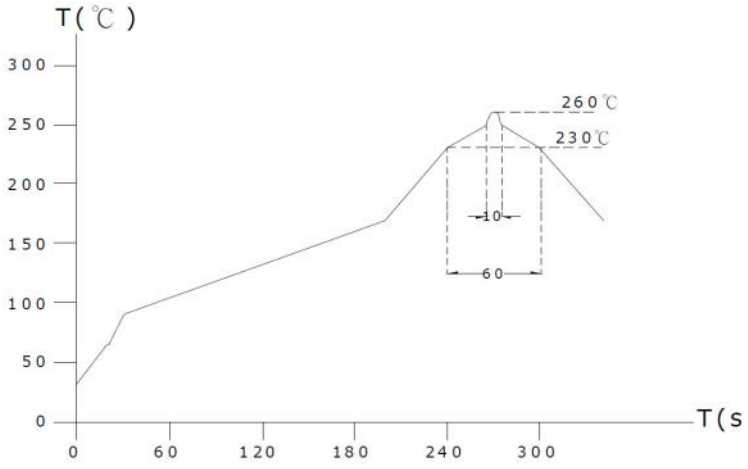
RELIABILITY TEST

1.Operating temperature range
-40 TO + 125°C (Includes temperature when the coil is heated)
2. External appearance
On visual inspection, the coil has no 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)
inductance deviation within ±5.0%, after 96 hours
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/s^2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds (See recommend reflow)
11. Storage environment
Temperature: 10°C~35°C; -35°C~85°C (after mounting on PCB)
Humidity Range: 50% ~ 80% RH
12. Use components within 12 months.
If 12 months or more have elapsed, check solderability before use.

LEAD-FREE HEAT ENDURANCE TEST



LEAD-FREE RECOMMENDED REFLOW