

Type TFC0805CH

2.2nH to 0.82μH

- # Standard EIA 0805 package
- # Moulded wirewound construction
- # Reflow or wave soldering
- # Ceramic core
- # High Q

High quality subminiature inductors exhibiting excellent mechanical and electrical characteristics supplied on 8mm tape and reel or bulk packed. TFC0805CH inductors are wound on a ceramic former producing stable, low value high Q chip inductors suitable for very high frequency applications.

Electrodes are phosphor bronze tin plated to achieve ideal solderability using reflow or solder bath techniques.

Electrical specification

Case style	EIA 0805 subminiature epoxy resin
Inductance range	2.2nH to 0.82μH
Marking	Epoxy ink
Working temp. range	(-55 +125)°C
Storage temp. range	(-55 +125)°C
Insulation resistance	1000 Meg. Ω min., 100Vd.c.
Dielectric strength	250Va.c. applied between terminal and case, one minute max.

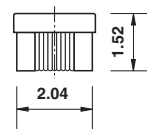
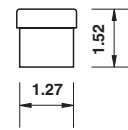
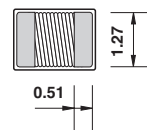
Environmental specification

High temp.	μH ±10% max., Q ±20% max., +85°C for 500 hours with rated d.c. current
Humidity load life	μH ±5% max., Q ±20% max., relative humidity 90% - 95%, +60°C for 500 hours with rated d.c. current
Low temp. storage	μH ±5% max., Q ±20% max., -40°C for 500 hours
Thermal shock	μH ±5% max., Q ±20% max., 100 cycles; 30 minutes @ +40°C, 30 minutes @ +85°C
Resistance to solvents	Resistant to freon, TF, TE, or TMS for 5 minutes

Mechanical specification

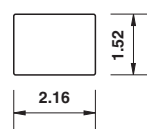
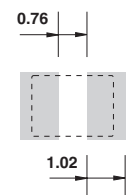
Vibration	μH ±5% max., Q ±20% max., frequency sweep (10 ~ 55)Hz in one minute, amplitude each of three mutually perpendicular planes, two hours each plane
Shock	μH ±5% max., Q ±20% max., 100G, 6 milli. secs., half sine wave each of three mutually perpendicular planes, three shocks each plane
Solderability	90% uniform coating min. with precoating of flux, and dip into solder at +230°C, 3 secs.
Solder heat resistance	μH ±5% max., Q ±20% max., 5 minutes preheating at +120°C, 5 secs. at +260°C
Terminal pull test	1kg load in horizontal direction for 1 minute

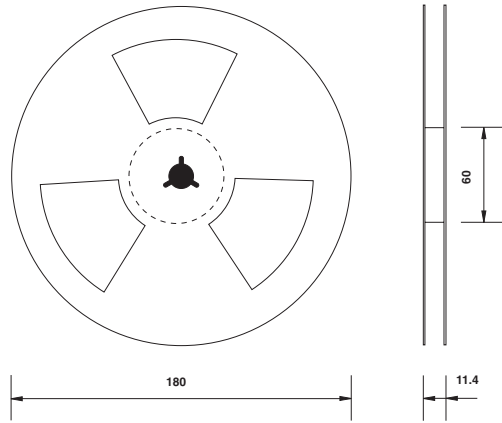
Dimensions(mm) shown x5



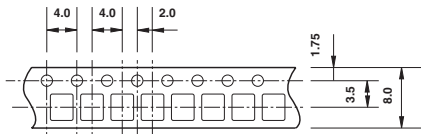
Suggested pad layout

Suitable for reflow or wave soldering



TFC0805CH tape and reel dimensions(mm)


Centre hole diameter 13.0mm, slot width 2mm spaced at 120°
 Reel quantity 2000 pieces, leader tape 400mm minimum
 Trailer tape: 160mm minimum.



Tape transport hole diameter 1.5mm
 Compartment size 1.6mm x 2.286mm, depth 1.7mm

Standard values

TFC Part No.	nH	Q	Test Freq. MHz	S.R.F. min. MHz	Ω d.c. max.	I d.c. max. mA
TFC0805CH GR 2N2	2.2	15	250	6000	0.08	600
TFC0805CH GR 3N3	3.3	50	250	6000	0.08	600
TFC0805CH GR 6N8	6.8	50	250	5500	0.11	600
TFC0805CH GR 8N2	8.2	50	250	4700	0.12	600
TFC0805CH GR 10N	10	50	250	4300	0.14	600
TFC0805CH GR 12N	12	50	250	4000	0.15	600
TFC0805CH GR 15N	15	50	250	3400	0.17	600
TFC0805CH GR 18N	18	50	250	3300	0.20	600
TFC0805CH GR 22N	22	55	250	2600	0.22	500
TFC0805CH GR 27N	27	55	250	2500	0.25	500
TFC0805CH GR 33N	33	60	250	2050	0.27	500
TFC0805CH GR 39N	39	60	250	2000	0.29	500
TFC0805CH GR 47N	47	60	200	1650	0.31	500
TFC0805CH GR 56N	56	60	200	1550	0.34	500
TFC0805CH GR 68N	68	60	200	1450	0.38	500
TFC0805CH GR 82N	82	65	150	1300	0.42	400

TFC Part No.	μ H	Q	Test Freq. MHz	S.R.F. min. MHz	Ω d.c. max.	I d.c. max. mA
TFC0805CH GR R10	0.10	65	150	1200	0.46	400
TFC0805CH GR R12	0.12	50	150	1100	0.51	400
TFC0805CH GR R15	0.15	50	100	920	0.56	400
TFC0805CH GR R18	0.18	50	100	870	0.64	400
TFC0805CH GR R22	0.22	50	100	850	0.70	400
TFC0805CH GR R27	0.27	48	100	650	1.10	350
TFC0805CH GR R33	0.33	48	100	600	1.40	310
TFC0805CH GR R39	0.39	48	100	560	1.50	290
TFC0805CH GR R47	0.47	33	100	375	1.76	250
TFC0805CH GR R56	0.56	23	50	340	1.90	230
TFC0805CH GR R68	0.68	23	50	188	2.20	190
TFC0805CH GR R82	0.82	23	50	215	2.35	180

Ordering information

Order the type TFC0805 chip inductors using the following standard part numbers to indicate value, tolerance and packaging:

TFC Part No ----- TFC0805 CH GR R12 K

- TFC0805 ----- Type No.
- CH ----- Core material:
----- CH = ceramic
- G ----- Gold plated electrodes
- R ----- Tape and reel
- R12 ----- Inductance value code
- K ----- Tolerance:
----- M = 20%, K = 10%, J = 5%