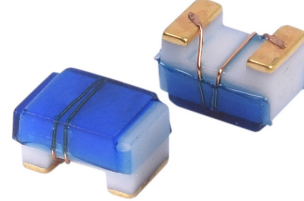


SERIES: FCBA1-0805 | DESCRIPTION: MINIATURE SMD CHIP INDUCTORS

FEATURES

- Ceramic construction with high SRF & Q values
- Non-magnetic coil form assures thermal stability & predictability
- Ferrite core construction provides lower DCR & higher current values
- Suitable for high frequency electronic applications



MODEL	Inductance L	Test Frequency L	Tolerance	Q min	Test Frequency Q	SRF min	DC Resistance max	Rated Current max
	[nH]	[MHz]	[±%]		[MHz]	[MHz]	[Ω]	[mA]
FCBA1-0805F-2N2K	2.2	250	10	50	1500	8500	0.030	800
FCBA1-0805F-2N7K	2.7	250	10	50	1500	8000	0.045	800
FCBA1-0805F-3N3K	3.3	250	10	35	1500	7900	0.090	600
FCBA1-0805F-4N7K	4.7	250	10	40	1000	6000	0.050	600
FCBA1-0805F-5N1J	5.1	250	2, 5, 10	50	1000	580	0.050	600
FCBA1-0805F-5N6J	5.6	250	2, 5, 10	50	1000	5500	0.065	600
FCBA1-0805F-6N8J	6.8	250	2, 5, 10	50	1000	5500	0.110	600
FCBA1-0805F-7N5J	7.5	250	2, 5, 10	35	1000	4700	0.150	600
FCBA1-0805F-8N2J	8.2	250	2, 5, 10	35	1000	4700	0.200	600
FCBA1-0805F-10NJ	10	250	2, 5, 10	50	500	4200	0.150	600
FCBA1-0805F-12NJ	12	250	2, 5, 10	50	500	4000	0.150	600
FCBA1-0805F-15NJ	15	250	2, 5, 10	45	500	3400	0.170	600
FCBA1-0805F-18NJ	18	250	2, 5, 10	55	500	3300	0.200	600
FCBA1-0805F-20NJ	20	250	2, 5, 10	55	500	2800	0.220	500
FCBA1-0805F-22NJ	22	250	2, 5, 10	55	500	2600	0.220	500
FCBA1-0805F-27NJ	27	250	2, 5, 10	55	500	2500	0.250	500
FCBA1-0805F-30NJ	30	250	2, 5, 10	55	500	2100	0.260	500
FCBA1-0805F-33NJ	33	250	2, 5, 10	55	500	2040	0.270	500
FCBA1-0805F-36NJ	36	250	2, 5, 10	55	500	2000	0.280	500
FCBA1-0805F-39NJ	39	250	2, 5, 10	55	500	2000	0.290	500
FCBA1-0805F-47NJ	47	200	2, 5, 10	55	500	1650	0.310	500
FCBA1-0805F-51NJ	51	200	2, 5, 10	55	500	1600	0.340	500
FCBA1-0805F-56NJ	56	200	2, 5, 10	55	500	1550	0.340	500
FCBA1-0805F-68NJ	68	200	2, 5, 10	55	500	1450	0.380	500
FCBA1-0805F-75NJ	75	200	2, 5, 10	55	500	1400	0.400	400
FCBA1-0805F-82NJ	82	150	2, 5, 10	55	500	1300	0.420	400
FCBA1-0805F-91NJ	91	150	2, 5, 10	50	500	1100	0.460	400
FCBA1-0805F-R10J	100	150	2, 5, 10	50	500	1200	0.460	400
FCBA1-0805F-R12J	120	150	2, 5, 10	45	250	1100	0.510	400
FCBA1-0805F-R15J	150	100	2, 5, 10	45	250	920	0.560	400
FCBA1-0805F-R18J	150	100	2, 5, 10	45	250	870	0.640	400

FCBA1-0805F-R22J	220	100	2, 5, 10	40	250	850	1.05	400
FCBA1-0805F-R27J	270	100	2, 5, 10	40	250	650	1.10	350
FCBA1-0805F-R33J	330	100	2, 5, 10	40	250	600	1.40	310
FCBA1-0805F-R36J	360	100	2, 5, 10	40	250	560	1.50	290
FCBA1-0805F-R47J	470	50	5, 10	33	100	375	2.00	250
FCBA1-0805F-R56J	560	25	5, 10	23	50	340	2.00	230
FCBA1-0805F-R68J	680	25	5, 10	23	50	300	2.10	190
FCBA1-0805F-R82J	820	25	5, 10	23	50	250	2.14	180
FCBA1-0805F-1R0J	1000	25	5, 10	20	50	200	2.40	170
FCBA1-0805F-1R5J	1500	7.9	5, 10	18	50	170	2.80	160
FCBA1-0805F-1R8J	1800	7.9	5, 10	18	50	140	3.80	150
FCBA1-0805F-2R2J	2200	7.9	5, 10	16	7.9	50	4.20	150

Notes:

1. Electrical specifications measured at 25°C
2. Rated Current - The current when the coil temperature increases up to max. $\Delta T = 15^\circ\text{C}$ ($T_A = 20^\circ\text{C}$)
3. Operating Temperature: -40°C to 125°C

PART NUMBER KEY

FCBA1 - 0805F - XXX X

Type / Product Series

FCBA1 = Miniature SMD Chip Inductors

Form Factor

0805F

Inductance Tolerance

G = $\pm 2\%$

J = $\pm 5\%$

K = $\pm 10\%$

M = $\pm 20\%$

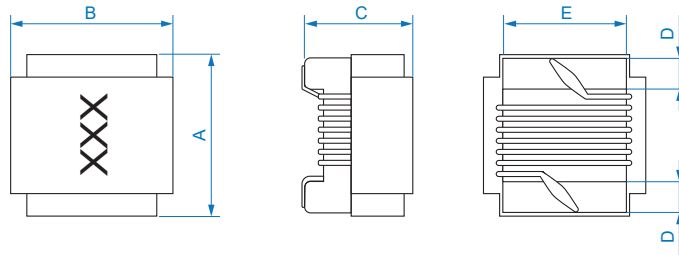
Inductance *

47N = 47 nH

* Note: Inductance expressed by three figures. The unit is micro henry (nH). The first and second figures are significant digits, the third figure expresses the number of zeros which follow the two figures. If there is a decimal point, it is expressed by the capital letter "N" (3N9 = 3.9 nH). In that case, all figures are significant digits.

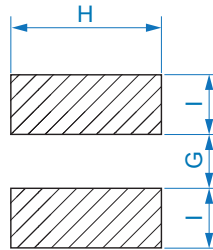
MECHANICAL DRAWING

Units: mm



PAD LAYOUT

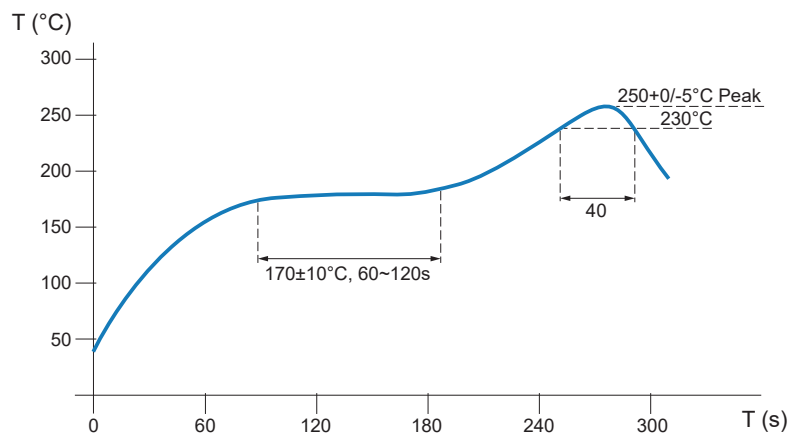
Units: mm



MECHANICAL DIMENSIONS (mm)

Product Series	A max	B max	C max	D	E	G	H	I
FCBA1-0805	2.30	1.73	1.52	0.51	1.27	0.76	1.78	1.02

RECOMMENDED REFLOW SOLDERING CONDITIONS



The recommended reflow conditions are set according to the soldering equipment used.

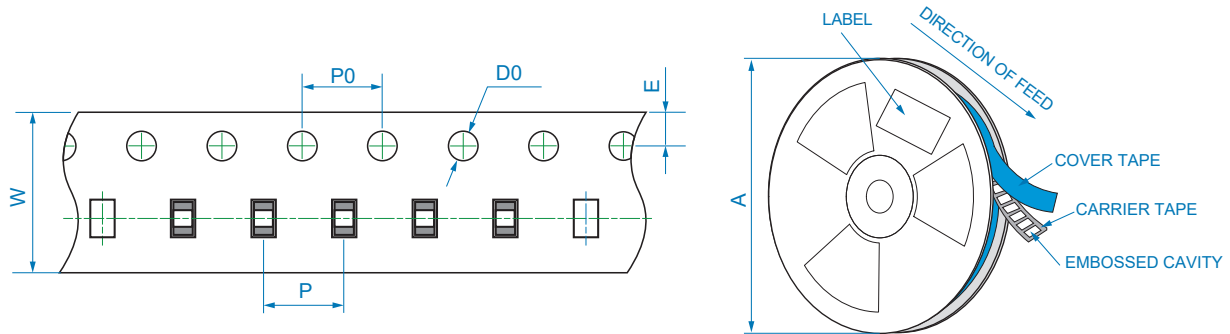
Since various manufactures may have different reflow soldering equipment, products, process conditions, set methods, etc., when setting the reflow contions, please adjust and confirm according to users' environment/equipment.

Notes:

- a) Solder reflow temperature: +250°C max. for maximum 10 seconds
- b) It is not recommended to solder inductors by soldering iron
- c) Please contact us for details

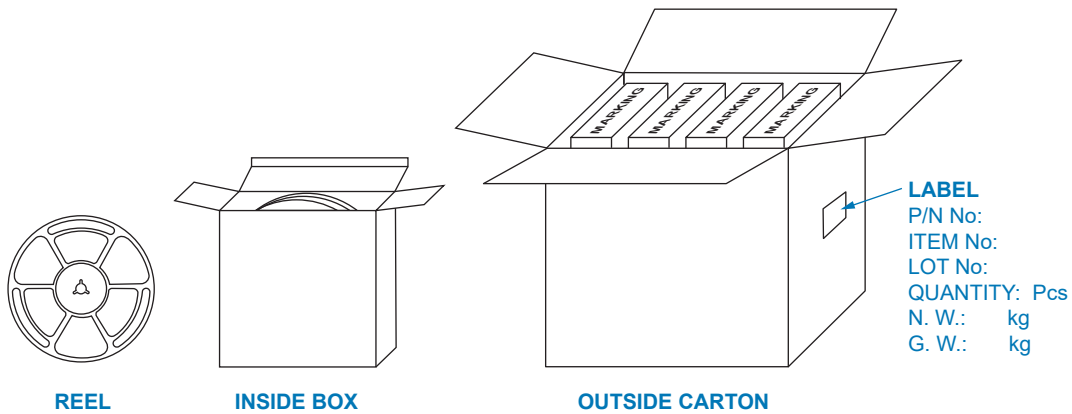
QUANTITY PER REEL & PACKING INFORMATION

Units: mm



TAPE DIMENSIONS (mm)

Product Series	W	P	P0	D0	E	A
FCBA1-0805	8.0	2.0	4.0	1.5	1.75	178



QUANTITY PER PACKAGE

Product Series	Pcs per Reel	Pcs per Inside Box	Pcs per Outside Carton
FCBA1-0805	3000	15000	180000

Storage Conditions

- Temperature conditions: <35°C.
- Humidity conditions between 35% - 65%.
- Moisture Sensitivity Level (MSL): Level 1.
- Storage of material to be in a sulfur and chlorine free environment.

REVISION HISTORY

Rev.	Description	Date
1	initial release	May/24/2024
A		

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.



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