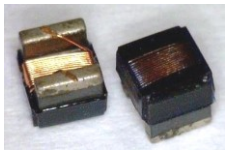
Chip Inductors - 2012P-Series (0805)

BINGRI TECH

Features & Application 2020/1/1

- Higher inductance values than other 0805 inductors
- Ferrite construction for high current handling
- Inductance values: 78 nH – 47 µH; 10%and 20% tolerance



Core material Ferrite

Environmental RoHS compliant, halogen free

Terminations Silver-palladium-platinum-glass frit. Other terminatior available at additional cost.

Ambient temperature –40°C to +125°C with Irms current

Maximum part temperature +140°C (ambient + temp rise).

Storage temperature Component: –40°C to +140°C. Tape and reel packaging: –40°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

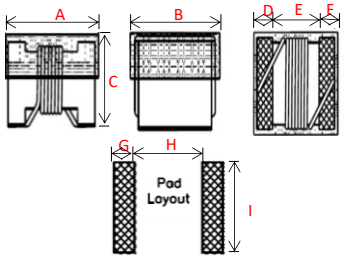
Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

★ When ordering, please check part number

Part number	Inductance 7.96MHz (uH)	Inductance Tolerance	Q (min) 7.96MHz	RDC (Ω) Max	IRMS (mA)	SRF (GHz) Min.
SFI2012P-78N□T	0.078	K,M	10	0.060	2000	1.440
SFI2012P-90N□T	0.090	K,M	10	0.10	2000	1.200
SFI2012P-R11□T	0.11	K,M	10	0.07	2000	1.200
SFI2012P-R33□T	0.33	K,M	10	0.15	1000	0.850
SFI2012P-R47□T	0.47	K,M	10	0.20	750	0.720
SFI2012P-R56□T	0.56	K,M	10	0.21	730	0.665
SFI2012P-R68□T	0.68	K,M	10	0.28	670	0.565
SFI2012P-R75□T	0.75	K,M	10	0.30	660	0.550
SFI2012P-R82□T	0.82	K,M	10	0.31	650	0.545
SFI2012P-1R0□T	1.0	K,M	10	0.34	615	0.525
SFI2012P-1R2□T	1.2	K,M	10	0.39	550	0.473
SFI2012P-1R5□T	1.5	K,M	10	0.45	520	0.300
SFI2012P-1R8□T	1.8	K,M	10	0.48	500	0.230
SFI2012P-2R2□T	2.2	K,M	10	0.67	420	0.215
SFI2012P-2R7□T	2.7	K,M	10	0.74	410	0.140
SFI2012P-3R3□T	3.3	K,M	10	0.81	385	0.095
SFI2012P-3R9□T	3.9	K,M	10	0.88	372	0.057
SFI2012P-4R7□T	4.7	K,M	10	1.1	345	0.051
SFI2012P-5R6□T	5.6	K,M	10	1.3	335	0.044
SFI2012P-6R8□T	6.8	K,M	10	1.2	315	0.039
SFI2012P-8R2□T	8.2	K,M	10	1.3	295	0.033
Part number	Inductance 2.52MHz (uH)	Inductance Tolerance	Q (min) 2.52MHz	RDC (Ω) Max	IRMS (mA)	SRF (GHz) Min.
SFI2012P-100□T	10	K,M	10	1.8	260	0.030
SFI2012P-120□T	12	K,M	10	2.0	250	0.027
SFI2012P-150□T	15	K,M	10	2.7	215	0.022
SFI2012P-170□T	17	K,M	10	3.4	200	0.021
SFI2012P-180□T	18	K,M	10	3.1	195	0.020
SFI2012P-200□T	20	K,M	10	3.5	190	0.019
SFI2012P-220□T	22	K,M	10	4.0	180	0.018
SFI2012P-270□T	27	K,M	10	5.6	170	0.016
SFI2012P-330□T	33	K,M	10	7.6	145	0.015
SFI2012P-470□T	47	K,M	10	8.6	100	0.010

Isolation (Vrms) : 250V. Winding to winding isolation (hipot) tested for one minute.



Dimensions	
A	2.40 MAX
B	1.60 MAX
C	1.40 MAX
D	0.55 TYP
E	1.30 TYP
F	0.55 TYP
G	1.02 TYP
H	0.76 TYP
I	1.78 TYP
unit : mm	

Impedance/Inductance/Q/ LCR Angilent E4991A

Resistance DC Chroma 16502

Current per winding that causes a 20°C rise from 25°C ambie

Electrical specifications at 25°C

Weight 9.7 – 12.7 mg.

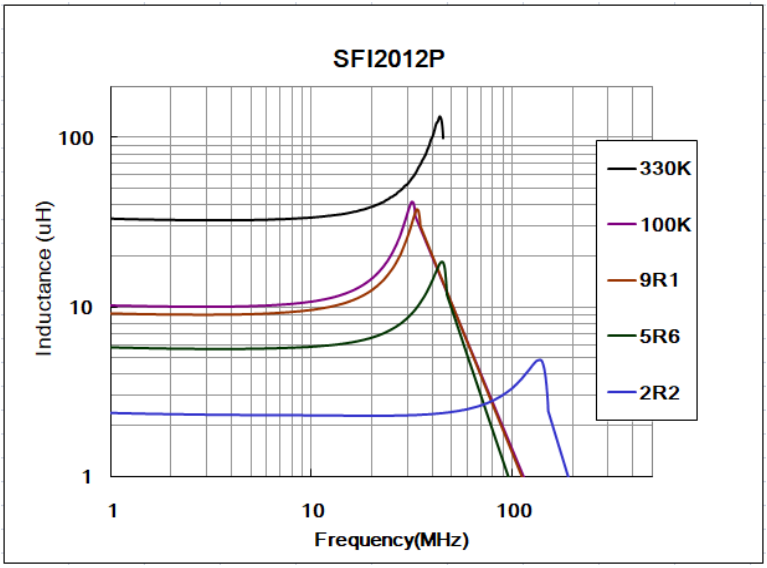
Packaging 2000/7〃 reel; Plastic tape: 8 mm wide.

Packaging will different,accroding the various chip size.

Contact Us	
US	sales-us@bing-ri.com.tw
Taiwan	sales-tw@bing-ri.com.tw
China	sales-cn@bing-ri.com.tw
Japan	sales-jp@bing-ri.com.tw

Official Website :
https://www.bing-ri.com.tw/

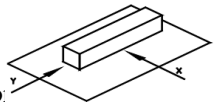
Typical Inductance vs Frequency



GENERAL CHARACTERISTICS

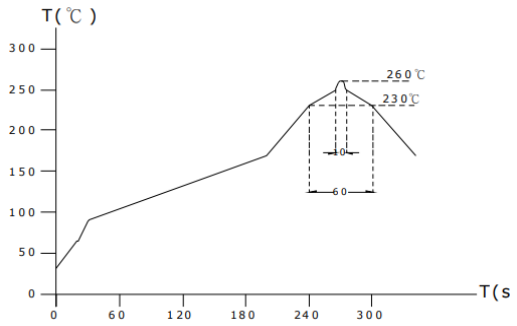
1. Operating temperature range: -40 TO + 125℃(Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Ywithstanding at below conditions.

Terminal should not peel off. (refer to figure at right) 0.5kg Min –2012



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and co
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/ (℃ -25~+80). ℃ , 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 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
10. Resistance to Soldering Heat: 260 , 10 seconds(See attached recommend reflow)
11. Storage environment: Storage condition: Temperature Range: 10 ~ 35 (Generally: 21 ~ 31) , Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%) ; Transportation condition: Temperature Range:-35 ~ 85 , Humidity Range: 50% ~ 95% RH
12. Use components within 12 months. If 12 months or more have elapsed, check soldarability before use.
13. Reflow profile recommend:

Lead-free heat en duran ce test



Lead-free the recommended reflow condition