

Ceramic Wirewound RF Inductor (AEC-Q200)



AISC-Q0805 Series

Request Samples



Check Inventory



2.29 x 1.73 x 1.52 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- PPAP ready and supported
- TS16949 certified production lines
- AEC-Q200 (grade 1) qualified
- Ceramic base with high SRF
- Excellent DCR and current carrying characteristics.
- Ultra-compact inductors
- Tight tolerance down to $\pm 2\%$

Applications

- Automotive applications
- Bluetooth, W-LAN, Broadband Network
- Impedance matching networks
- Filtering for high frequency communication circuits
- Video cameras, displays, and other electronic devices.

Electrical Specifications

Part Number Inductance Code	L (nH)	Tolerance	Q	Q Test	SRF	DCR	IDC
			Min	Freq (MHz)	Min (GHz)	Max (Ω)	Max (mA)
2N7	2.7	J, K	80	1500	7.900	0.06	800
2N8	2.8	G, J, K	80	1500	7.900	0.06	800
3N0	3.0	J, K	65	1500	7.900	0.06	800
3N3	3.3	J, K	50	1500	6.000	0.08	600
3N9	3.9	J, K	50	1500	5.500	0.08	600
4N7	4.7	J, K	65	1000	5.500	0.08	600
5N6	5.6	J, K	65	1000	5.500	0.08	600
6N2	6.2	J, K	50	1000	5.500	0.11	600
6N8	6.8	J, K	50	1000	5.500	0.11	600
7N5	7.5	J, K	50	1000	4.500	0.14	600
8N2	8.2	J, K	50	1000	4.700	0.12	600
8N7	8.7	J, K	50	1000	4.000	0.21	400
10N	10	G, J, K	60	500	4.200	0.10	600
12N	12	G, J, K	50	500	4.000	0.15	600
15N	15	G, J, K	50	500	3.400	0.17	600
18N	18	G, J, K	50	500	3.300	0.20	600
20N	20	G, J, K	55	500	2.600	0.22	500
22N	22	G, J, K	55	500	2.600	0.22	500
24N	24	G, J, K	50	500	2.000	0.22	500
27N	27	G, J, K	55	500	2.500	0.25	500
30N	30	G, J, K	60	500	2.050	0.25	500
33N	33	G, J, K	60	500	2.050	0.27	500
36N	36	G, J, K	55	500	1.700	0.27	500
39N	39	G, J, K	60	500	2.000	0.29	500
43N	43	G, J, K	60	500	1.650	0.34	500
47N	47	G, J, K	60	500	1.650	0.31	500



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 Phone: 512-371-6159 Fax: 512-351-8858
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REVISION Initial Release :
11/21/2023

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Electrical Specifications (Cont'd)

Part Number Inductance Code	L (nH)	Tolerance	Q	Q Test	SRF	DCR	IDC
			Min	Freq	Min	Max	Max
				(MHz)	(GHz)	(Ω)	(mA)
51N	51	G, J, K	60	500	1.650	0.34	500
56N	56	G, J, K	60	500	1.550	0.34	500
62N	62	G, J, K	60	500	1.500	0.36	500
68N	68	G, J, K	60	500	1.450	0.38	500
72N	72	G, J, K	65	500	1.400	0.40	500
75N	75	G, J, K	65	500	1.350	0.41	500
82N	82	G, J, K	65	500	1.300	0.42	400
91N	91	G, J, K	65	500	1.200	0.48	400
R10	100	G, J, K	65	500	1.200	0.46	400
R11	110	G, J, K	50	250	1.000	0.48	400
R12	120	G, J, K	50	250	1.100	0.51	400
R13	130	G, J, K	50	250	0.980	0.54	400
R15	150	G, J, K	50	250	0.920	0.56	400
R16	160	G, J, K	50	250	0.870	0.60	400
R18	180	G, J, K	50	250	0.870	0.64	400
R20	200	G, J, K	50	250	0.860	0.66	400
R22	220	G, J, K	50	250	0.850	0.70	400
R24	240	G, J, K	44	250	0.690	1.00	350
R25	250	G, J, K	50	250	0.680	1.00	350
R27	270	G, J, K	48	250	0.650	1.00	350
R30	300	G, J, K	48	250	0.620	1.20	330
R33	330	G, J, K	48	250	0.600	1.40	310
R36	360	G, J, K	48	250	0.580	1.45	300
R39	390	G, J, K	48	250	0.560	1.50	290
R43	430	G, J, K	33	100	0.430	1.70	230
R47	470	G, J, K	33	100	0.375	1.70	250
R51	510	G, J, K	23	50	0.365	1.90	240
R56	560	G, J, K	23	50	0.340	1.90	230
R60	600	G, J, K	23	50	0.260	1.60	450
R62	620	G, J, K	23	50	0.220	2.20	210
R68	680	G, J, K	23	50	0.200	2.20	190
R75	750	G, J, K	23	50	0.200	2.30	180
R82	820	G, J, K	23	50	0.200	2.35	180
1R0	1000	G, J, K	20	50	0.100	2.50	170
1R2	1200	G, J, K	18	25	0.100	2.50	170



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Part Number Inductance Code	L (nH)	Tolerance	Q	Q Test	SRF	DCR	IDC
			Min	Freq (MHz)	Min (GHz)	Max (Ω)	Max (mA)
1R5	1500	G, J, K	16	25	0.100	2.50	170
1R8	1800	G, J, K	16	7.9	0.080	2.50	170
2R2	2200	G, J, K	16	7.9	0.060	2.70	160
2R7	2700	G, J, K	16	7.9	0.050	3.10	150
3R3	3300	G, J, K	15	7.9	0.040	4.40	90
3R9	3900	G, J, K	15	7.9	0.400	4.41	90
4R7	4700	G, J, K	15	7.0	0.040	6.40	90

Test Conditions:

Inductance, Q, SRF: HP4286/E4982A

DCR: Micro-Ohm meter (Gom-801G)/E4982A

IDC: Applied the current to coils, the temperature of coil increases $\Delta T 15^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

Operating Temperature: -40°C to $+125^{\circ}\text{C}$

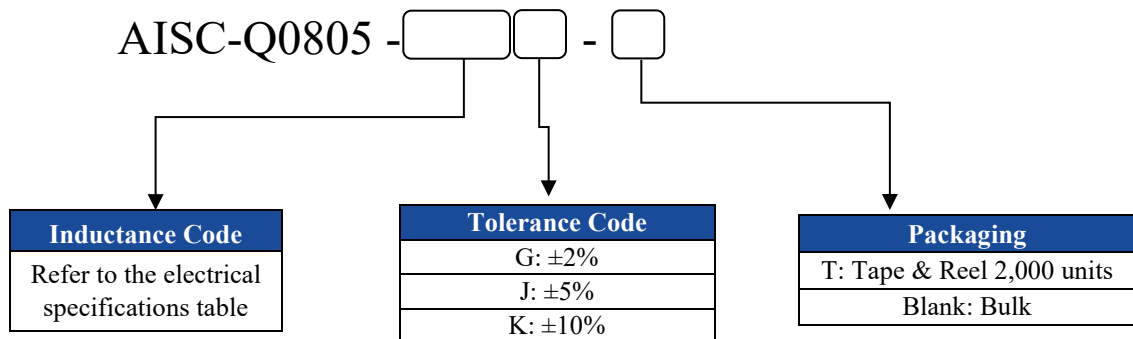
Components Storage Temperature: -40°C to $+125^{\circ}\text{C}$

Tape and Reel packaging Temperature: $15\sim 28^{\circ}\text{C}$; $< 80\%$ RH

AISC-Q0805 is AEC-Q200 Qualified

AISC-Q0805 Series is RoHS Compliant and Pb free

Part Number Identification



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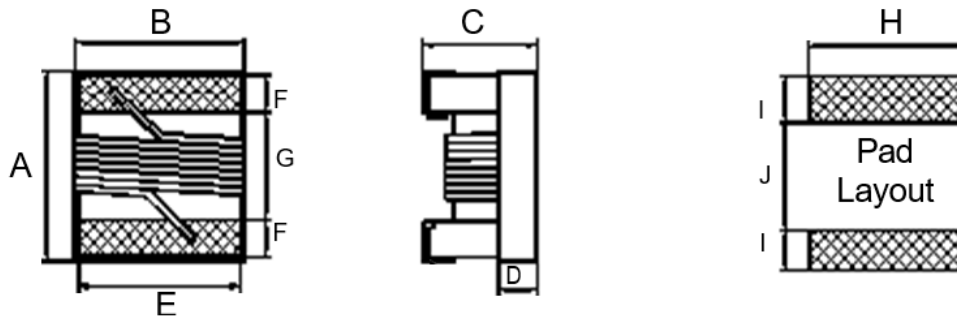


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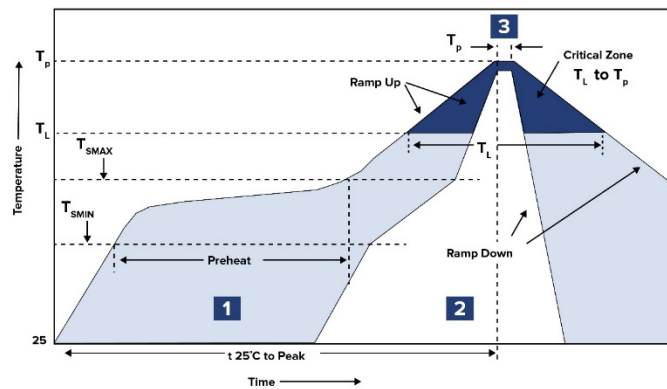
Mechanical Dimensions



A	B	C	D	E	F	G	H	I	J
2.29 max	1.73 max	1.52 max	0.51 ref	1.27	0.44	1.02	1.78	1.02	0.76

Dimensions: mm

Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	90 ~ 120 sec.
2	Reflow	T_L 220°C	40 ~ 60 sec.
3	Peak heat	T_P 260°C±5°C	10 sec. MAX

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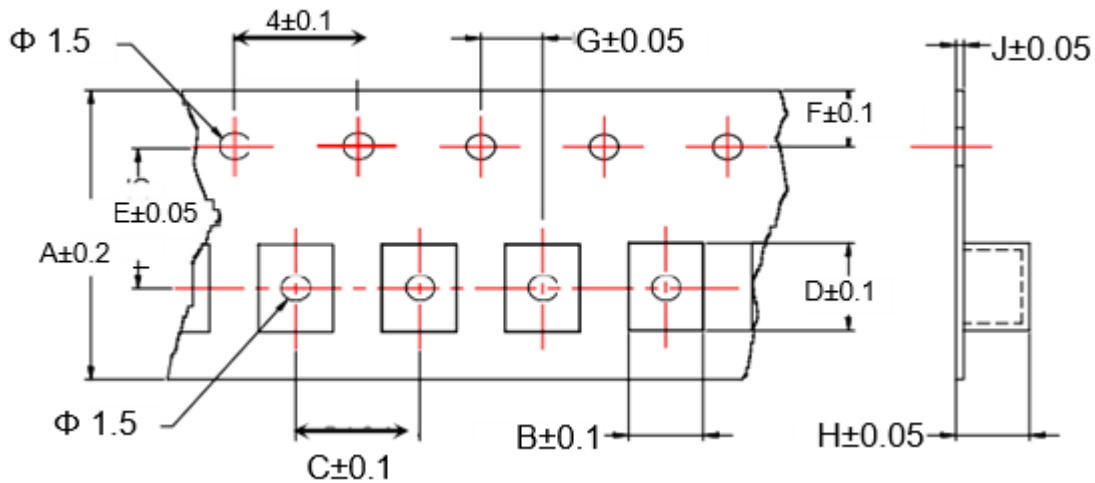
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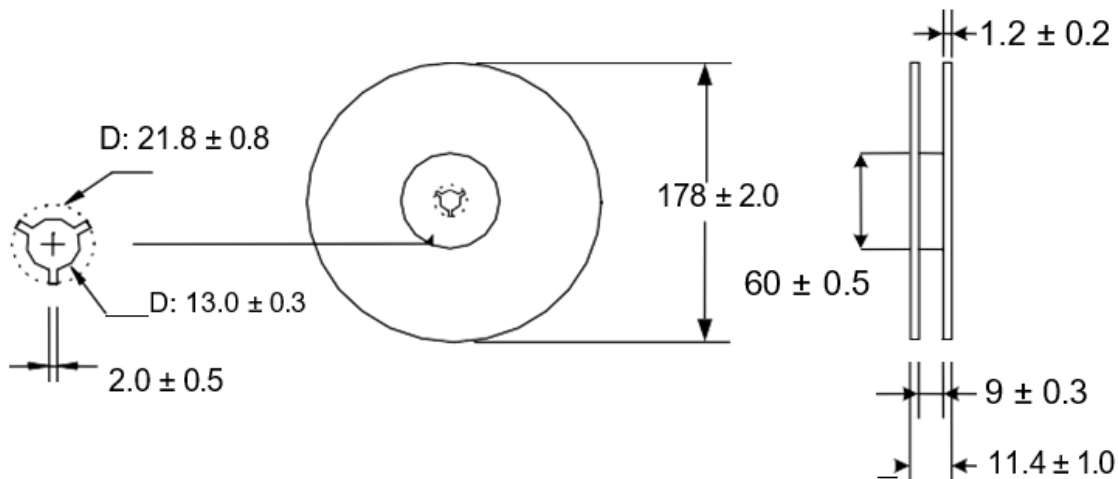
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Packaging

T: Tape & Reel: 2,000 pcs/reel



A	B	C	D	E	F	G	H	J
8.0	1.85	4.0	2.30	3.5	1.75	2.0	1.45	0.23



Dimensions: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



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