

Ceramic Wirewound RF Inductor (AEC-Q200)



AISC-Q1008 Series

Request Samples



Check Inventory



2.92 x 2.79 x 2.13 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)
3N3	3.3	J, K	50	1500	4.000	0.15	1000
4N7	4.7	J, K	50	1500	4.000	0.15	1000
5N6	5.6	J, K	50	1500	4.000	0.15	1000
10N	10	G, J, K	50	500	4.100	0.08	1000
12N	12	G, J, K	50	500	3.300	0.09	1000
15N	15	G, J, K	50	500	2.500	0.11	1000
18N	18	G, J, K	50	350	2.400	0.12	1000
22N	22	G, J, K	55	350	2.400	0.12	1000
24N	24	G, J, K	55	350	1.900	0.13	1000
27N	27	G, J, K	55	350	1.600	0.13	1000
30N	30	G, J, K	60	350	1.600	0.14	1000
33N	33	G, J, K	60	350	1.600	0.14	1000
36N	36	G, J, K	60	350	1.600	0.15	1000
39N	39	G, J, K	60	350	1.500	0.15	1000
47N	47	G, J, K	65	350	1.500	0.16	1000
51N	51	G, J, K	65	350	1.300	0.18	1000
56N	56	G, J, K	65	350	1.300	0.18	1000
62N	62	G, J, K	65	350	1.250	0.20	1000
68N	68	G, J, K	65	350	1.300	0.20	1000
75N	75	G, J, K	60	350	1.100	0.21	1000
82N	82	G, J, K	60	350	1.000	0.22	1000
91N	91	G, J, K	50	350	1.000	0.45	1000
R10	100	G, J, K	60	350	1.000	0.56	650
R12	120	G, J, K	60	350	0.950	0.63	650
R15	150	G, J, K	45	100	0.850	0.70	800
R16	160	G, J, K	45	100	0.800	0.75	650
R18	180	G, J, K	45	100	0.750	0.77	620

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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)
R22	220	G, J, K	45	100	0.700	0.84	500
R24	240	G, J, K	45	100	0.650	0.88	500
R27	270	G, J, K	45	100	0.600	0.91	690
R30	300	G, J, K	45	100	0.585	1.00	450
R33	330	G, J, K	45	100	0.570	1.05	450
R36	360	G, J, K	45	100	0.530	1.10	470
R39	390	G, J, K	45	100	0.500	1.12	630
R43	430	G, J, K	45	100	0.480	1.15	470
R47	470	G, J, K	45	100	0.450	1.19	470
R56	560	G, J, K	45	100	0.415	1.33	580
R62	620	G, J, K	45	100	0.375	1.40	300
R68	680	G, J, K	45	100	0.375	1.47	540
R75	750	G, J, K	45	100	0.360	1.54	360
R82	820	G, J, K	45	100	0.350	1.61	400
R91	910	G, J, K	35	50	0.320	1.68	380
1R0	1000	G, J, K	35	50	0.290	1.75	370
1R2	1200	G, J, K	35	50	0.250	2.00	310
1R5	1500	G, J, K	28	50	0.200	2.30	330
1R8	1800	G, J, K	28	50	0.160	2.60	300
2R2	2200	G, J, K	28	50	0.160	2.80	280
2R7	2700	G, J, K	22	25	0.140	3.20	290
3R3	3300	G, J, K	22	25	0.110	3.40	290
3R9	3900	G, J, K	18	25	0.100	3.60	260
4R7	4700	G, J, K	18	25	0.090	4.00	260
5R6	5600	G, J, K	16	7.96	0.020	4.00	240
6R8	6800	G, J, K	15	7.96	0.040	4.90	200
8R2	8200	G, J, K	15	7.96	0.025	6.00	170
103	10000	G, J, K	15	7.96	0.020	9.00	150
123	12000	G, J, K	15	7.96	0.018	10.5	130
153	15000	G, J, K	15	7.96	0.015	11.5	120

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: $15 \sim 28^{\circ}\text{C}$; $< 80\% \text{ RH}$

AISC-Q1008 Series is **RoHS Compliant and Pb free**



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Part Number Identification

AISC-Q1008 - -

Inductance Code

Refer to the electrical specifications table

Tolerance Code

G: $\pm 2\%$

J: $\pm 5\%$

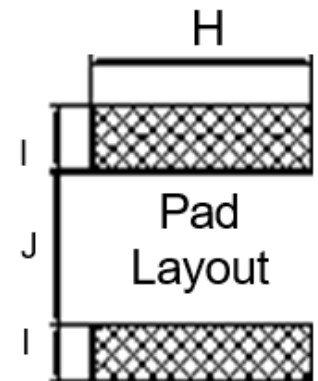
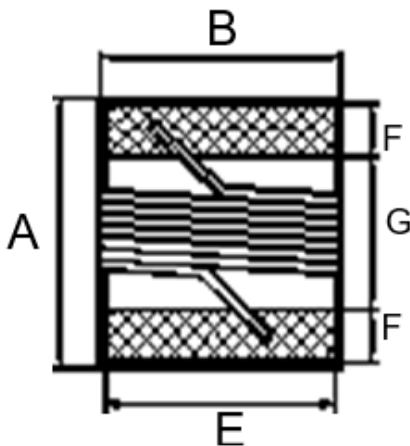
K: $\pm 10\%$

Packaging

T: Tape & Reel 2,000 units

Blank: Bulk

Mechanical Dimensions



A	B	C	D	E	F	G	H	I	J
2.92	2.79	2.13	0.65	2.03	0.51	1.52	2.54	1.02	1.27

Dimensions: mm



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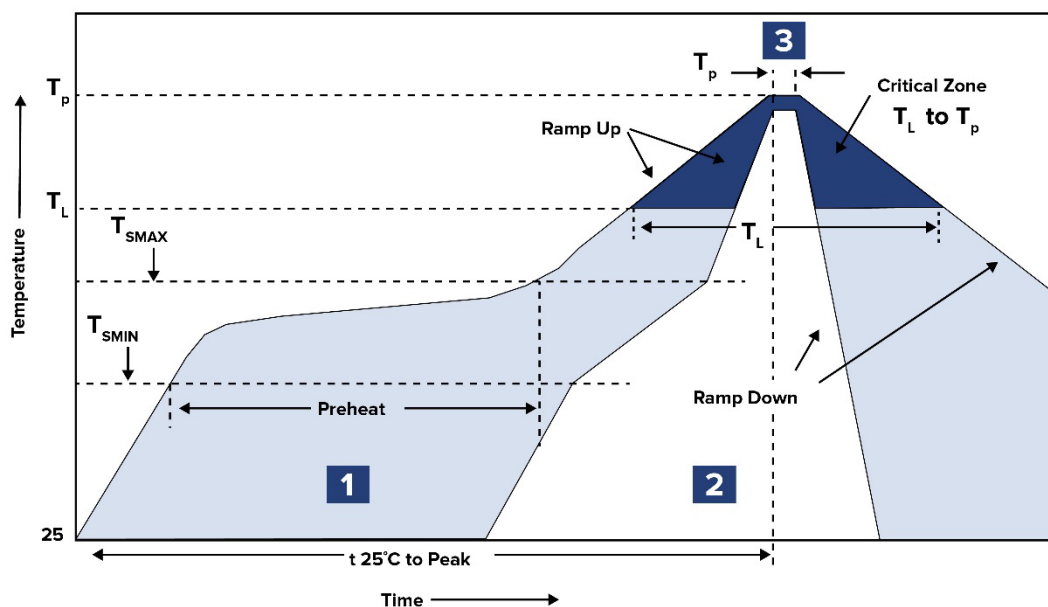


Check Inventory



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MSL Level = 1

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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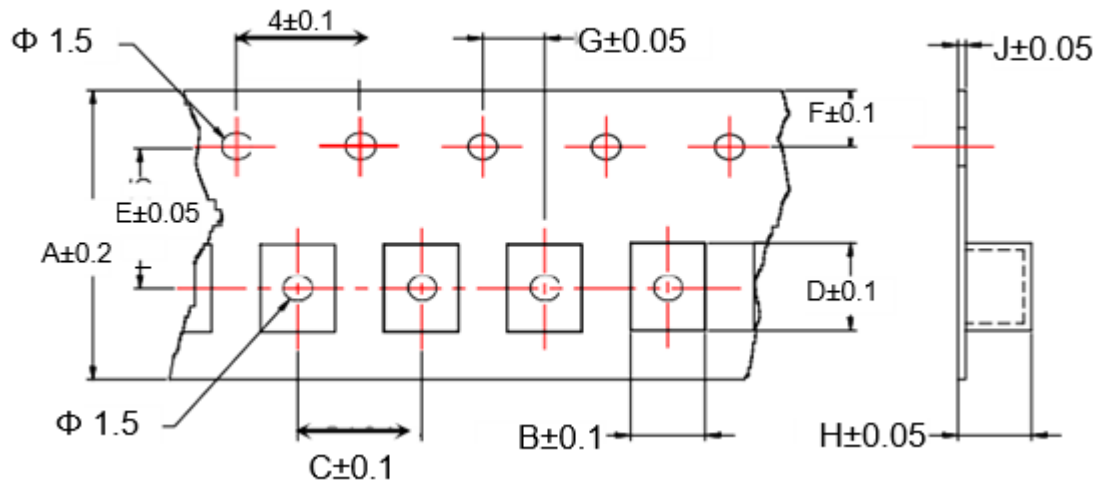
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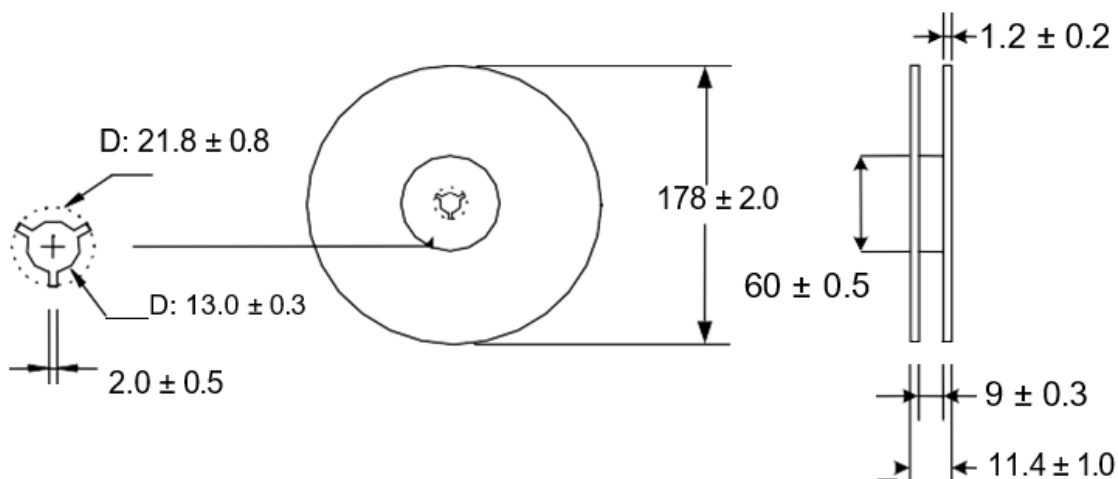
2.92 x 2.79 x 2.13 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

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



A	B	C	D	E	F	G	H	J
8.0	2.70	4.0	2.80	3.5	1.75	2.0	2.00	0.23



Dimensions: mm

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