

Ceramic Wirewound RF Inductor (AEC-Q200)



AISC-Q0603HC Series

Request Samples



Check Inventory



1.80 x 1.12 x 1.02 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 (L) (nH)	Tolerance	Q Min	SRF Min (GHz)	DCR Max (Ω)	IDC Max (mA)
AISC-Q0603HC-1N6	1.6 @ 250 MHz	J, K	24	12.5	0.03	2400
AISC-Q0603HC-3N6	3.6 @ 250 MHz	J, K	24	5.9	0.048	2300
AISC-Q0603HC-3N9	3.9 @ 250 MHz	J, K	25	5.9	0.054	2200
AISC-Q0603HC-6N8	6.8 @ 250 MHz	J, K	35	5.8	0.054	2100
AISC-Q0603HC-7N5	7.5 @ 250 MHz	J, K	38	3.7	0.059	2100
AISC-Q0603HC-8N2	8.2 @ 250 MHz	J, K	38	3.7	0.06	2000
AISC-Q0603HC-10N	10 @ 250 MHz	G, J, K	38	3.7	0.071	2000
AISC-Q0603HC-12N	12 @ 250 MHz	G, J, K	38	3	0.075	2000
AISC-Q0603HC-15N	15 @ 250 MHz	G, J, K	38	2.8	0.08	1900
AISC-Q0603HC-18N	18 @ 250 MHz	G, J, K	40	2.8	0.099	1900
AISC-Q0603HC-22N	22 @ 250 MHz	G, J, K	42	2.4	0.099	1800
AISC-Q0603HC-24N	24 @ 250 MHz	G, J, K	42	2.4	0.105	1800

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-Q0603HC is AEC-Q200 Qualified

AISC-Q0603HC Series is RoHS Compliant and Pb free



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REVISION Initial Release :

11/21/2023

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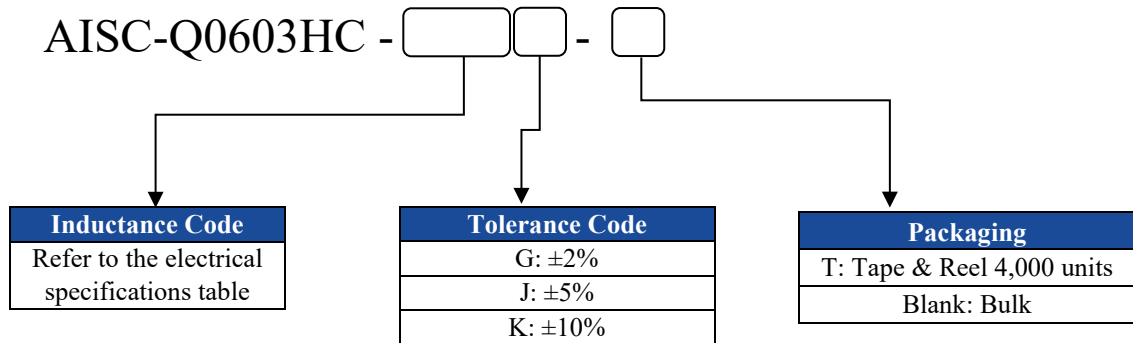
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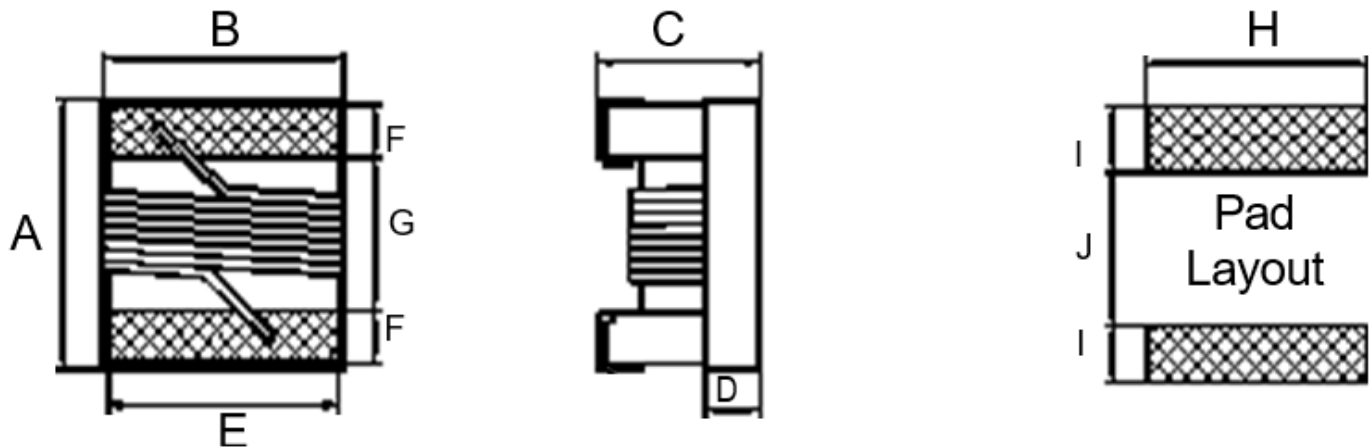
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Part Number Identification



Mechanical Dimensions



A	B	C	D	E	F	G	H	I	J
1.80 max	1.12 max	1.02 max	0.38 max	0.76	0.33	0.86	1.02	0.64	0.64

Dimensions: mm

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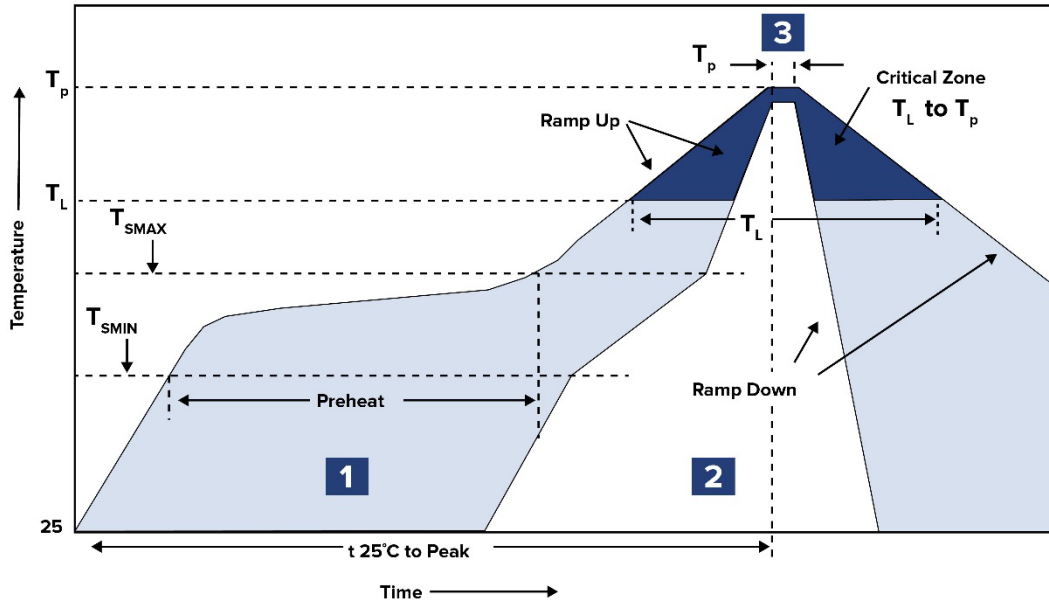
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Reflow Profile



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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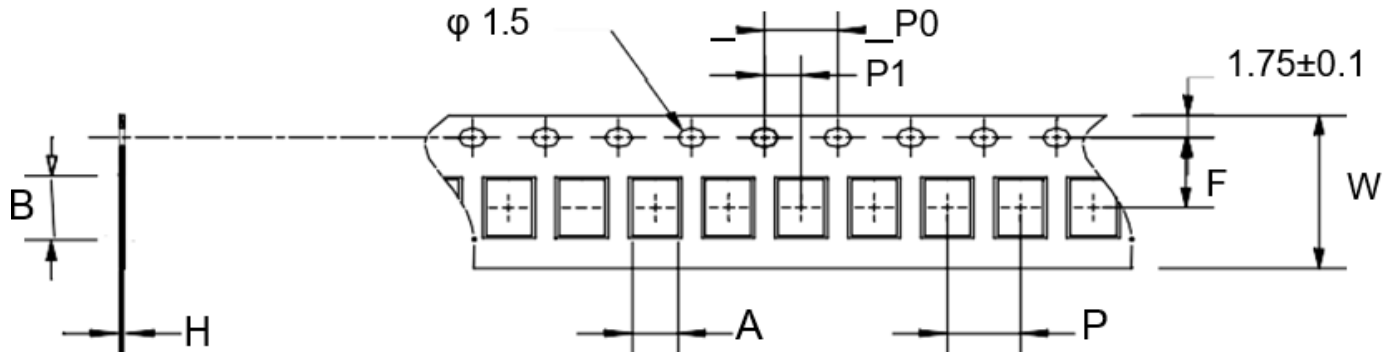
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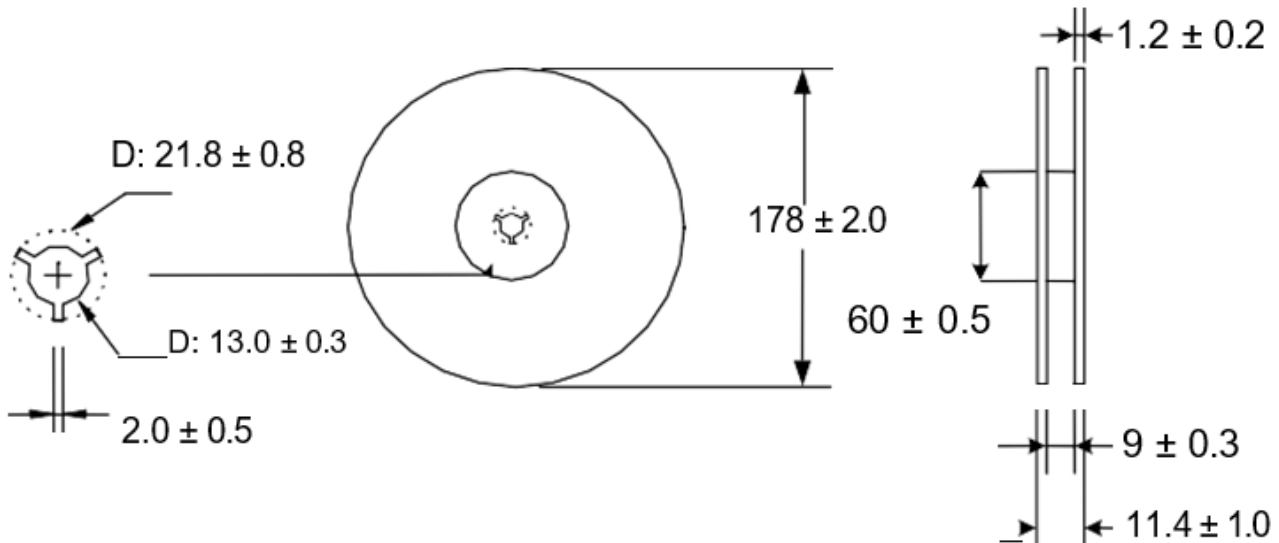
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Packaging

T: Tape & Reel: 4,000 pcs/reel



A	B	H	F	P	P0	P1	W
1.35	1.95	0.95	3.50	4.00	4.00	2.00	8.00



Dimensions: mm

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