

Power Injection Chokes for PoC 1210POC



- Optimized for AEC-Q200 power over coax (PoC) applications
- Small size to reduce board area of overall system solutions
- High impedance ($\geq 1\text{k}\Omega$) maintained over a wide band frequency range to isolate AC signal from the DC power
- AEC-Q200 Grade 1 qualified (-40°C to $+125^\circ\text{C}$ ambient)

Core material Ferrite

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over silver-platinum-glass frit.

Weight 115 – 125 mg

Ambient temperature -40°C to $+125^\circ\text{C}$ with (15°C rise) Irms current.

Maximum part temperature $+140^\circ\text{C}$ (ambient + temp rise).

Storage temperature Component: -40°C to $+140^\circ\text{C}$.

Tape and reel packaging: -40°C to $+80^\circ\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^\circ\text{C}$, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^\circ\text{C}$ / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	L^2 $\pm 20\%$ (μH)	DCR (Ohms) ³		SRF typ ⁴ (MHz)	Isat (mA) ⁵					Irms typ (mA)		
		typ	max		25°C	85°C	105°C	125°C	140°C	at 25°C ⁶	at 85°C ⁷	at 125°C ⁸
1210POC-222MR_	2.2	0.10	0.13	300	2200	1900	1700	1500	1300	1900	1730	1000
1210POC-682MR_	6.8	0.20	0.24	120	1400	1000	930	800	700	1360	1230	800
1210POC-103MR_	10.0	0.29	0.34	95	1100	850	760	660	560	1130	1020	570
1210POC-223MR_	22.0	0.76	0.88	70	720	580	520	450	390	700	630	400

1. When ordering, please specify **packaging** code:

1210POC-223MRC

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge). See dimensional drawing for packaging information.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked. See dimensional drawing for packaging information.

2. Inductance tested at 100 kHz, 0.1 Vrms, 200 mA DC using HP4263 w/SMD-B test fixture or equivalent

3. DCR measured using a micro-ohmmeter.

4. SRF measured using an Agilent/HP 5071C network analyzer and a Coilcraft SMD-D test fixture.

5. DC current that causes 30% inductance drop from its initial value at 200 mA at specified temperature.

6. Current that causes a 40°C rise at 25°C .

7. Current that causes a 40°C rise at 85°C .

8. Current that causes a 15°C rise at 125°C .

9. Electrical specifications at 25°C .

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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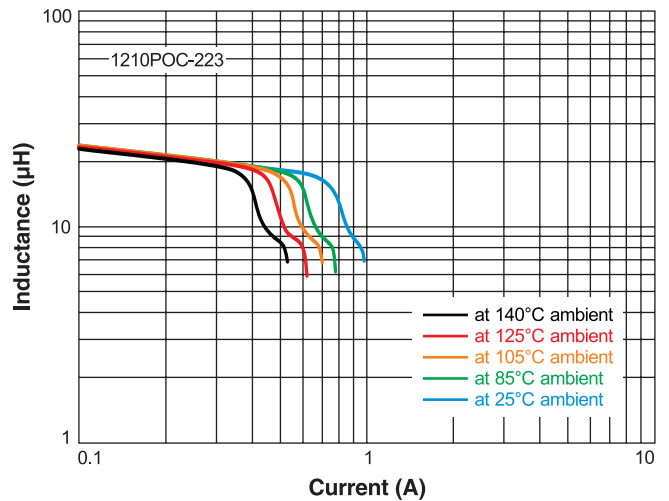
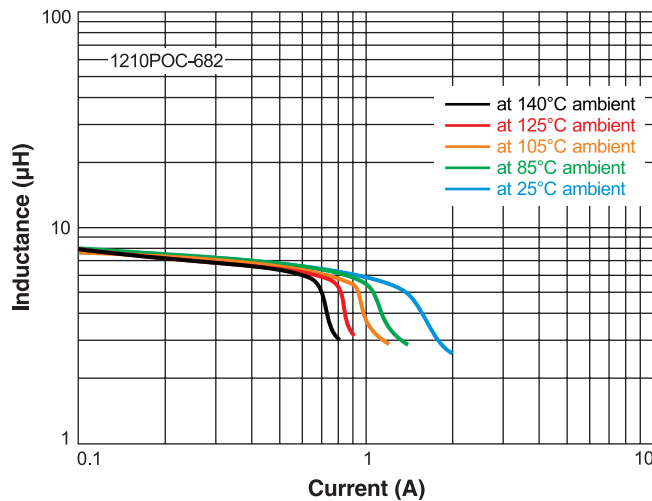
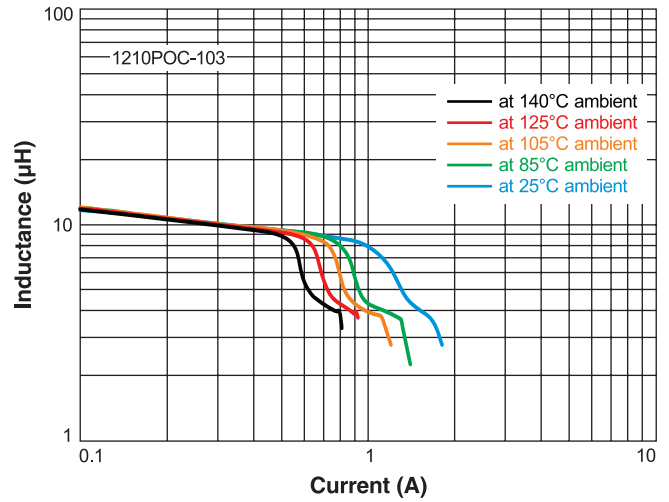
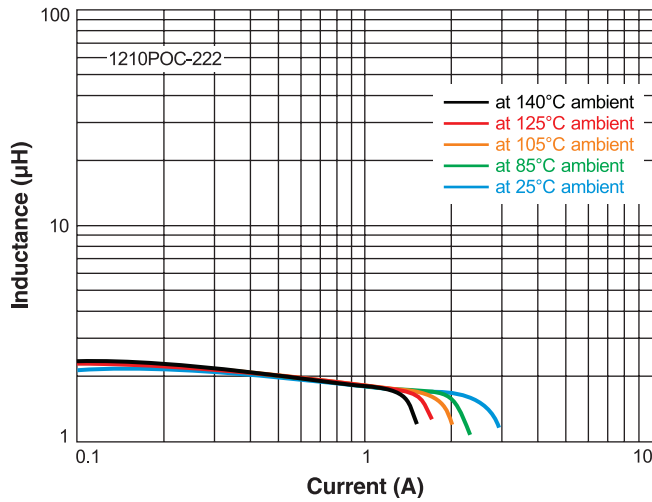
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1210POC Power Injection Chokes for PoC

L vs Current



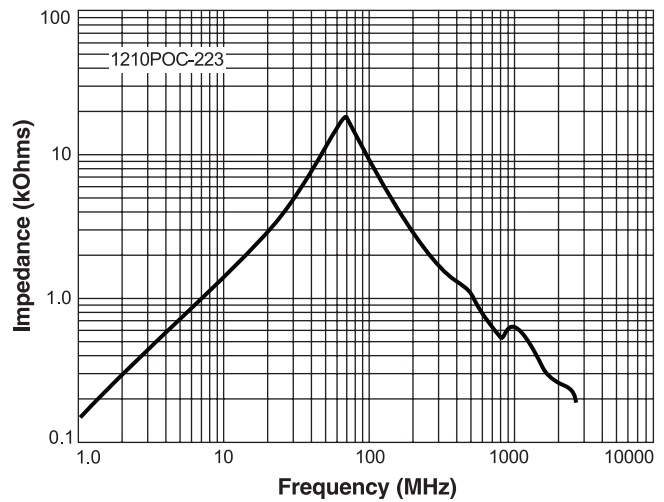
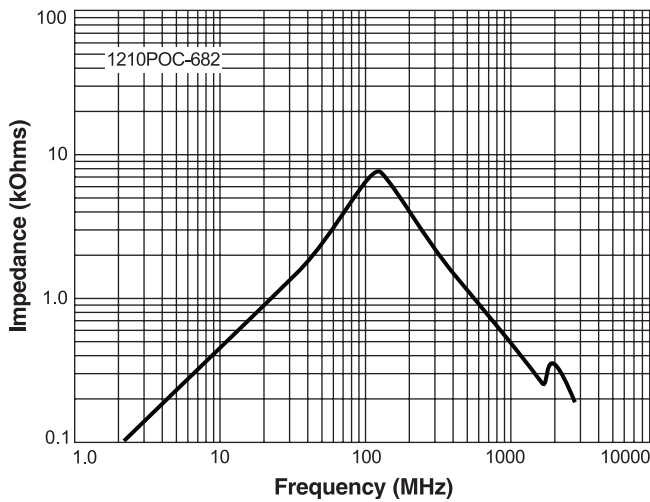
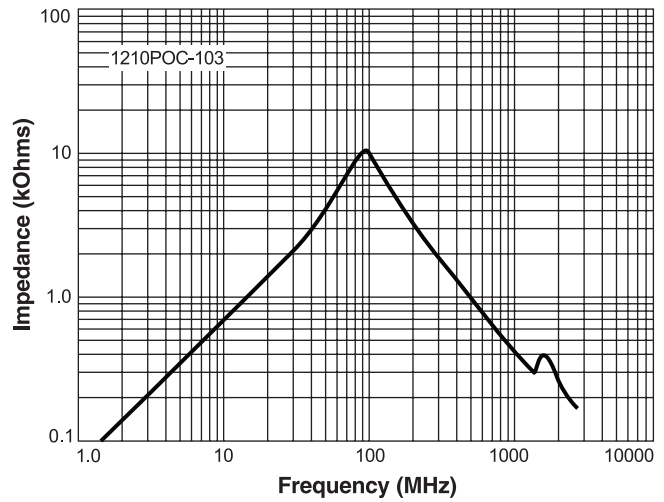
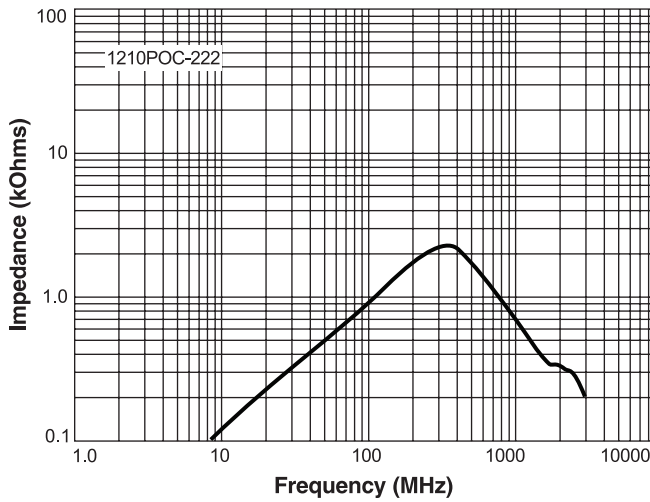
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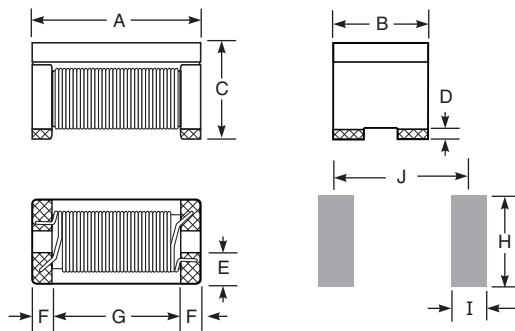


1210POC Power Injection Chokes for PoC

Impedance vs Frequency



Dimensions – 1210POC



Recommended Land Pattern

A	B	C	D	E	F	G	H	I	J
max	max	max							
0.13	0.105	0.118	0.004	0.037	0.020	0.080	0.104	0.026	0.100
3,30	2,67	3,00	0,10	0,94	0,51	2,03	2,65	0,65	2,54
									in
									mm

Packaging 750/7" reel; 3000/13" reel; Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 2.72 mm pocket depth



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