

NEW!

Power Injection Chokes for PoC 1205POC



- Optimized for AEC-Q200 power over coax (PoC) applications
- Small size to reduce board area of overall system solutions
- Board area is only 3.87mm²
- 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

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

Weight 36 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
1205POC-682MR_	6.8	0.36	0.41	220	780	640	580	520	470	880	800	460
1205POC-103MR_ ⁹	10.0	0.90	1.00	165	670	520	460	410	360	560	500	300

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

1205POC-103MRC

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. 1205POC-103 previously named WA8506-103.

10. Electrical specifications at 25°C.

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



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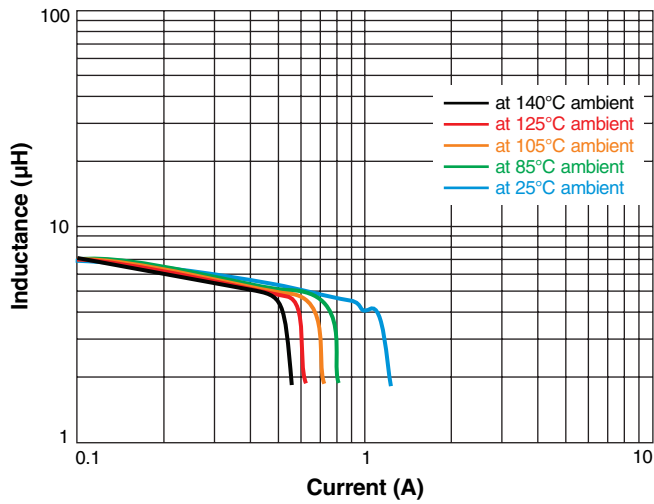
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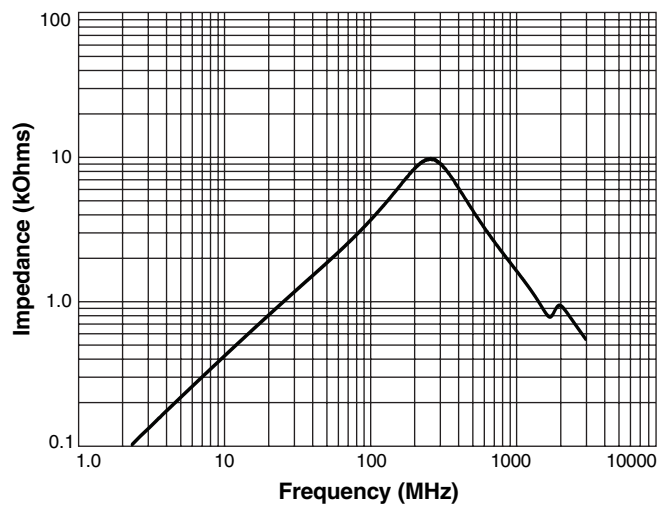


1205POC Power Injection Chokes for PoC

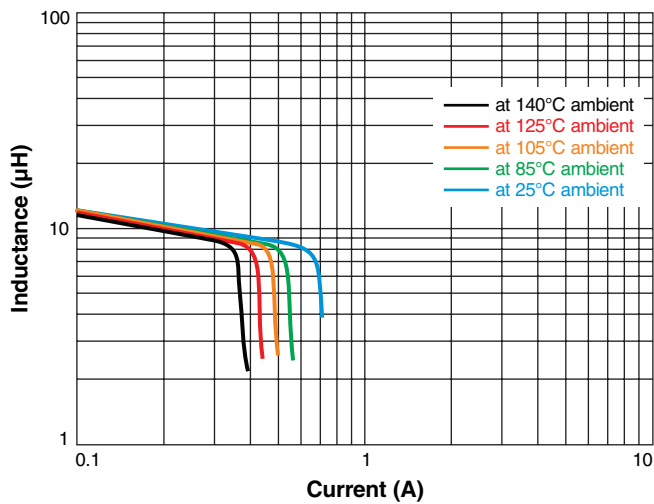
L vs Current – 1205POC-682



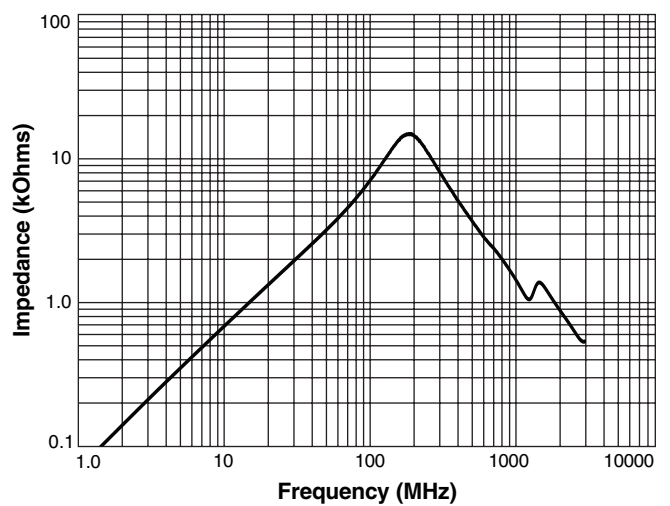
Impedance vs Frequency – 1205POC-682



L vs Current – 1205POC-103



Impedance vs Frequency – 1205POC-103



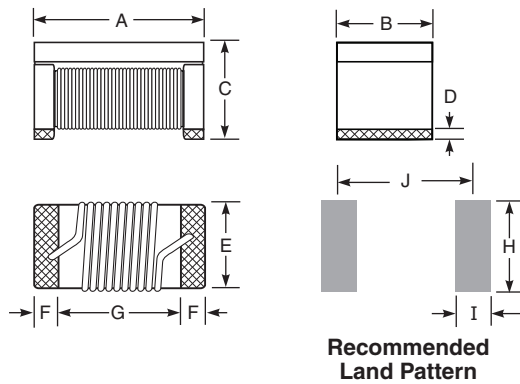
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1205POC Power Injection Chokes for PoC

Dimensions – 1205POC-103



A max	B max	C max	D	E	F	G	H	I	J	
0.126	0.055	0.093	0.006	0.050	0.012	0.096	0.055	0.018	0.107	inches
3,20	1,40	2,36	0,15	1,27	0,31	2,44	1,40	0,45	2,72	mm

Packaging 1000/7" reel; 3500/13" reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 2.36 mm pocket depth