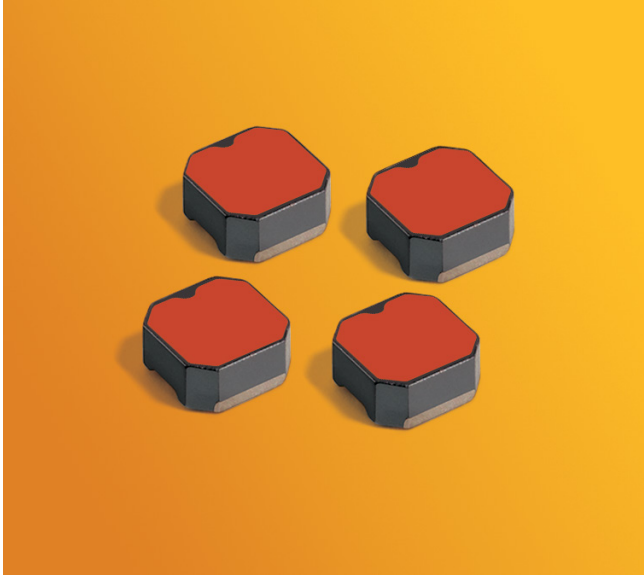


Outgassing Compliant Power Inductors AR425PJB



- High temperature materials allow operation in ambient temperatures up to 155°C
- Passes NASA low outgassing specifications
- Special construction allows it to pass vibration testing to 80 G and shock testing to 1000 G.
- Tin-lead (Sn-Pb) termination for the best possible board adhesion
- Non-metallic cover suitable for space applications

Core material Ferrite

Terminations Tin-lead (63/37) over tin over nickel.

Weight 95 – 120 mg

Ambient temperature –55°C to +105°C with Irms current

Maximum part temperature +155°C (ambient + temp rise)

Storage temperature Component: –55°C to +155°C.

Packaging: –55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Enhanced crush-resistant packaging 1000/7" reel

Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.9 mm pocket depth

Recommended pick and place nozzle OD: 4 mm; ID: ≤ 2 mm

| Part number ¹ | Inductance ² (µH) | DCR max ³ (Ohms) | SRF (MHz) ⁴ | | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|---------------------------------|-----------------------------------|------------------------|-----|-----------------------|-------------|-------------|-----------------------|--------------|
| | | | min | typ | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| AR425PJB351MSZ | 0.35 ±20% | 0.040 | 252 | 360 | 5.9 | 6.1 | 6.3 | 2.2 | 3.1 |
| AR425PJB561MSZ | 0.56 ±20% | 0.030 | 175 | 250 | 4.8 | 5.2 | 5.3 | 1.9 | 2.8 |
| AR425PJB102NSZ | 1.0 ±30% | 0.040 | 126 | 180 | 2.8 | 3.0 | 3.1 | 1.8 | 2.7 |
| AR425PJB222MSZ | 2.2 ±20% | 0.070 | 63 | 90 | 2.7 | 2.8 | 2.9 | 1.6 | 2.3 |
| AR425PJB262MSZ | 2.6 ±20% | 0.080 | 59 | 85 | 2.6 | 2.7 | 2.8 | 1.5 | 2.0 |
| AR425PJB332MSZ | 3.3 ±20% | 0.080 | 52 | 75 | 2.1 | 2.3 | 2.4 | 1.4 | 2.0 |
| AR425PJB472MSZ | 4.7 ±20% | 0.125 | 45 | 65 | 1.8 | 1.9 | 1.9 | 1.3 | 1.8 |
| AR425PJB682MSZ | 6.8 ±20% | 0.150 | 35 | 50 | 1.2 | 1.3 | 1.3 | 1.0 | 1.5 |
| AR425PJB103MSZ | 10 ±20% | 0.200 | 28 | 40 | 1.1 | 1.2 | 1.3 | 0.90 | 1.25 |
| AR425PJB153MSZ | 15 ±20% | 0.260 | 22 | 32 | 0.86 | 0.91 | 0.94 | 0.80 | 1.12 |
| AR425PJB183MSZ | 18 ±20% | 0.270 | 18 | 27 | 0.78 | 0.83 | 0.85 | 0.70 | 1.00 |
| AR425PJB223MSZ | 22 ±20% | 0.360 | 18 | 26 | 0.74 | 0.80 | 0.83 | 0.65 | 0.90 |
| AR425PJB333MSZ | 33 ±20% | 0.420 | 14 | 20 | 0.58 | 0.64 | 0.68 | 0.55 | 0.80 |
| AR425PJB473MSZ | 47 ±20% | 0.650 | 11 | 16 | 0.51 | 0.55 | 0.56 | 0.45 | 0.68 |
| AR425PJB683MSZ | 68 ±20% | 0.950 | 9.0 | 13 | 0.41 | 0.45 | 0.46 | 0.40 | 0.56 |
| AR425PJB104MSZ | 100 ±20% | 1.40 | 7.0 | 10 | 0.34 | 0.36 | 0.37 | 0.35 | 0.50 |
| AR425PJB124MSZ | 120 ±20% | 1.60 | 6.0 | 9.0 | 0.31 | 0.33 | 0.34 | 0.30 | 0.45 |
| AR425PJB154MSZ | 150 ±20% | 2.00 | 5.6 | 8.0 | 0.27 | 0.29 | 0.30 | 0.28 | 0.40 |
| AR425PJB184MSZ | 180 ±20% | 2.50 | 5.2 | 7.5 | 0.24 | 0.26 | 0.27 | 0.26 | 0.36 |
| AR425PJB224MSZ | 220 ±20% | 3.70 | 4.5 | 6.5 | 0.21 | 0.225 | 0.235 | 0.20 | 0.30 |
| AR425PJB334MSZ | 330 ±20% | 5.90 | 3.8 | 5.5 | 0.18 | 0.19 | 0.20 | 0.17 | 0.23 |
| AR425PJB474MSZ | 470 ±20% | 7.80 | 3.0 | 4.5 | 0.14 | 0.16 | 0.17 | 0.15 | 0.20 |
| AR425PJB564MSZ | 560 ±20% | 10.0 | 2.8 | 4.0 | 0.13 | 0.14 | 0.15 | 0.14 | 0.18 |
| AR425PJB684MSZ | 680 ±20% | 11.5 | 2.4 | 3.5 | 0.12 | 0.13 | 0.14 | 0.12 | 0.16 |
| AR425PJB824MSZ | 820 ±20% | 14.0 | 2.0 | 2.9 | 0.11 | 0.12 | 0.13 | 0.10 | 0.14 |
| AR425PJB105MSZ | 1000 ±20% | 18.0 | 1.9 | 2.8 | 0.10 | 0.11 | 0.11 | 0.098 | 0.125 |
| AR425PJB155MSZ | 1500 ±20% | 25.0 | 1.6 | 2.4 | 0.095 | 0.10 | 0.105 | 0.080 | 0.110 |
| AR425PJB185MSZ | 1800 ±20% | 31.5 | 1.6 | 2.3 | 0.090 | 0.095 | 0.100 | 0.070 | 0.095 |
| AR425PJB225MSZ | 2200 ±20% | 32.5 | 1.4 | 2.1 | 0.088 | 0.099 | 0.100 | 0.070 | 0.090 |
| AR425PJB335MSZ | 3300 ±20% | 48.0 | 1.1 | 1.6 | 0.082 | 0.092 | 0.094 | 0.055 | 0.075 |

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

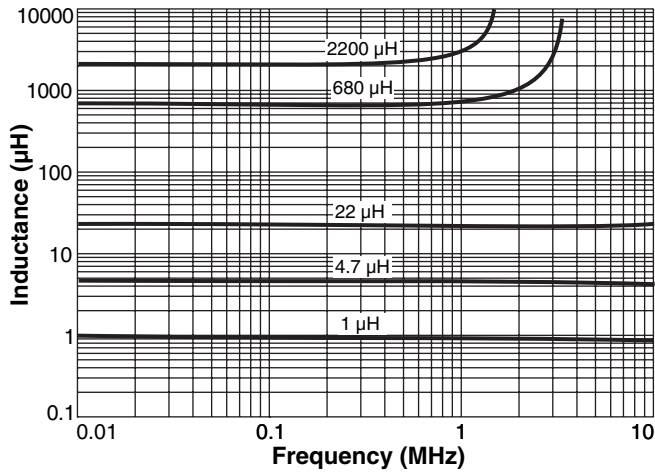
AR425PJB105MSZ
Testing:
Z = Unscreened
 All screening performed to the document's latest revision
H = Group A screening per Coilcraft CP-SA-10001
N = Group A screening per Coilcraft CP-SA-10004
J = Group A screening per Coilcraft CP-SA-10006
T = Screening per MIL-STD-981
U = Screening per EEE-INST-002
F = Screening per ESCC 3201

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A. Inductance at 1 MHz is the same for parts with SRF ≥10 MHz.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 8753ES or equivalent.
5. DC current that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient.
7. Electrical specifications at 25°C. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

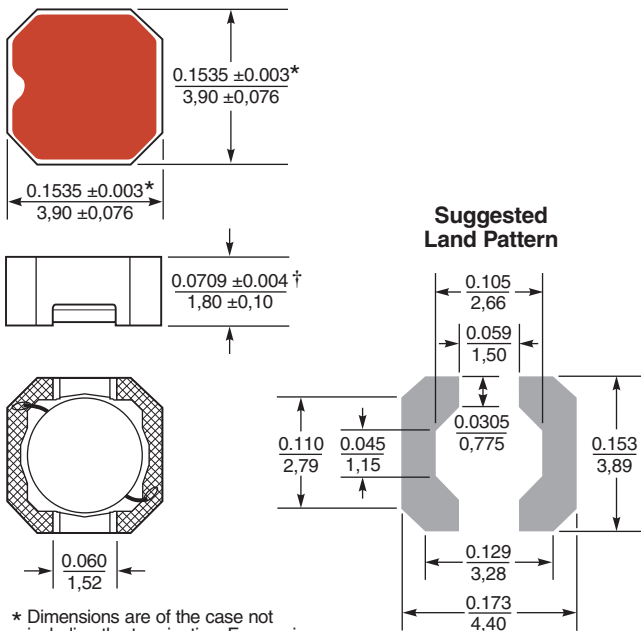
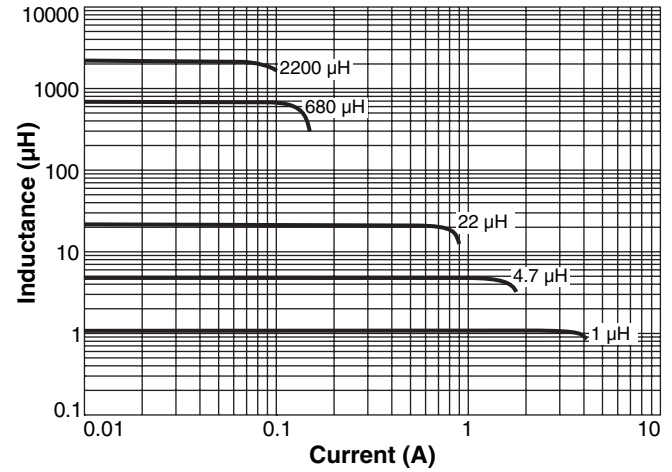
Coilcraft CPS
 CRITICAL PRODUCTS & SERVICES

AR425PJB Series (4018)

Typical L vs Frequency



Typical L vs Current



* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.010 in / 0,0254 mm.

† Height dimension is after mounting. For maximum height dimension before mounting, add 0.006 in / 0,152 mm.

Dimensions are in $\frac{\text{inches}}{\text{mm}}$

