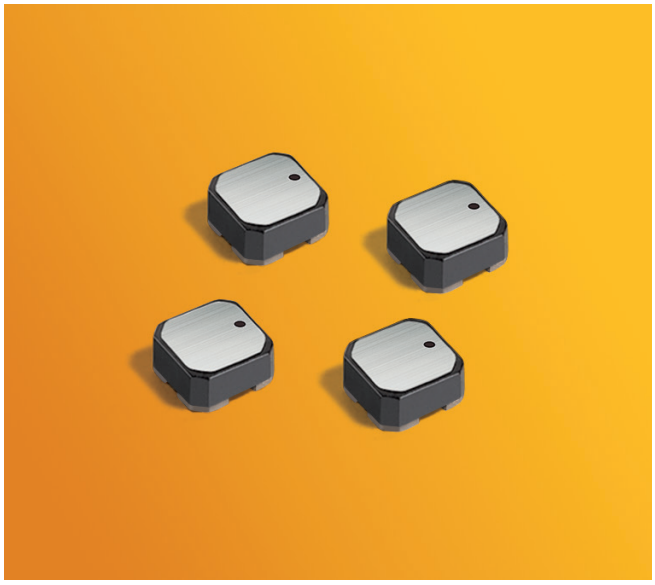
NEW!

Common Mode Chokes for Critical Applications AE412PJD



- Only 1.4 mm high and 3 mm square
- Ideal for use in both power line and signal line applications
- Common- and differential-mode filtering in a single device
- Up to 540 MHz differential mode cutoff frequency
- Can be used as coupled inductors for SEPIC applications

Core material Ferrite

Weight 48 – 66 mg

Terminations Tin-lead (63/37) over tin over nickel. Other terminations available at additional cost.

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

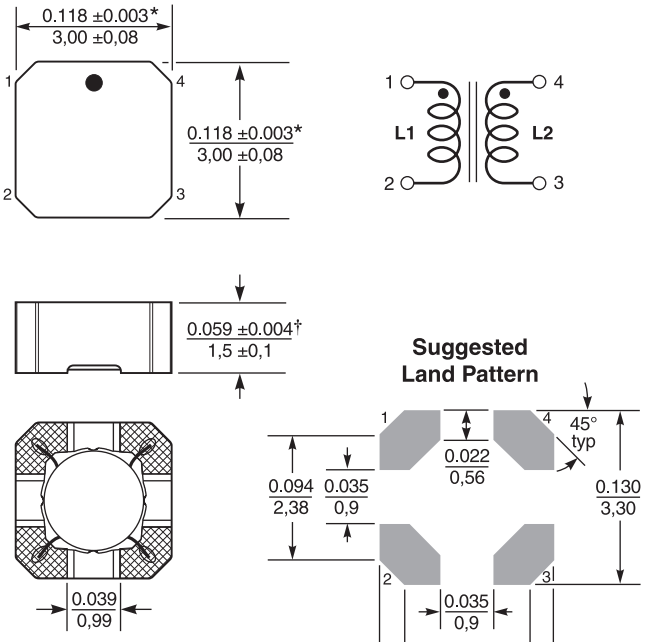
Winding to winding isolation 100 Vrms, one minute

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)

Recommended pick and place nozzle OD: 3 mm; ID: ≤1.5 mm

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.



*Dimensions are of the case not including termination. For maximum overall dimensions including the termination, add 0.010 inches / 0,254 mm.

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

Dimensions are in inches / mm

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document AE1324-1 Revised 01/11/24

AE412PJD Series Common Mode Chokes

Partnumber[1]	Common mode impedance max (kOhms)	Cutoff frequency[2] (MHz)	Inductance (µH)[3] min	Inductance (µH)[3] nom	DCR max[4] (Ohms)	Isolation[5] (Vrms)	Irms[6] (A)
AE412PJD391NPZ	1.03 @ 330 MHz	540	0.273	0.39	0.071	100	1.45
AE412PJD561MPZ	1.44 @ 240 MHz	540	0.448	0.56	0.079	100	1.37
AE412PJD102MPZ	2.43 @ 160 MHz	330	0.800	1.0	0.129	100	1.08
AE412PJD152MPZ	3.56 @ 130 MHz	330	1.20	1.5	0.204	100	0.86
AE412PJD182MPZ	4.37 @ 110 MHz	280	1.44	1.8	0.273	100	0.78
AE412PJD222MPZ	4.67 @ 100 MHz	330	1.76	2.2	0.300	100	0.75
AE412PJD332MPZ	7.28 @ 81 MHz	220	2.64	3.3	0.337	100	0.67
AE412PJD472MPZ	10.7 @ 66 MHz	210	3.76	4.7	0.503	100	0.54
AE412PJD682MPZ	12.1 @ 54 MHz	290	5.44	6.8	0.622	100	0.49
AE412PJD103MPZ	17.8 @ 47 MHz	330	8.00	10	1.040	100	0.38
AE412PJD153MPZ	22.6 @ 33 MHz	140	12.0	15	1.420	100	0.32
AE412PJD183MPZ	29.0 @ 31 MHz	94	14.4	18	1.550	100	0.31
AE412PJD223MPZ	27.3 @ 24 MHz	88	17.6	22	1.89	100	0.28
AE412PJD333MPZ	41.1 @ 21 MHz	59	26.4	33	2.84	100	0.23
AE412PJD473MPZ	48.7 @ 18 MHz	50	37.6	47	4.03	100	0.19
AE412PJD683MPZ	64.5 @ 14 MHz	48	54.4	68	6.11	100	0.16
AE412PJD104MPZ	94.7 @ 13 MHz	47	80.0	100	8.54	100	0.13
AE412PJD124MPZ	116 @ 11 MHz	37	96.0	120	9.23	100	0.13
AE412PJD154MPZ	135 @ 9.3 MHz	27	120	150	12.40	100	0.11
AE412PJD184MPZ	170 @ 8.0 MHz	39	144	180	15.32	100	0.10
AE412PJD224MPZ	155 @ 7.1 MHz	27	176	220	18.56	100	0.09
AE412PJD334MPZ	222 @ 5.9 MHz	16	264	330	27.70	100	0.07

1. When ordering, please specify **termination** and **screening** codes:

AE412PJD334MPZ

Termination:
- **P** = Tin-lead (63/37) over tin over nickel.
- **R** = Matte tin over nickel over silver-platinum glass frit
- **Q** = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit.

Screening:
- **Z** = Unscreened
- **Y** = Unscreened (SLDC Option A)
- **W** = Unscreened (SLDC Option B)
- **H** = Coilcraft CP-SA-10001 Group A
- **G** = Coilcraft CP-SA-10001 Group A (SLDC Option A)
- **D** = Coilcraft CP-SA-10001 Group A (SLDC Option B)
- **1** = EEE-INST-002 (Family 1) Level 1
- **2** = EEE-INST-002 (Family 1) Level 2
- **3** = EEE-INST-002 (Family 1) Level 3
- **4** = MIL-STD-981 (Family 04) Class B
- **5** = MIL-STD-981 (Family 04) Class S
- **F** = ESCC3201 (F4 operational life performed at 105°C)
- Screening performed to the document's latest revision.
- Lot qualification (Group B) available.
- Testing T and U have been replaced with more detailed codes 4, 5, and 1, 2, 3, respectively. Codes T and U can still be used, if necessary. Custom testing also available.
- Country of origin restrictions available; prefix options G or F.

2 Frequency at which the differential mode attenuation equals 3 dB

3 Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.

4 DCR is for each winding.

5 Interwinding isolation (hipot) tested for one minute.

6 Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

7. Electrical specifications at 25°C.

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

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Document AE1324-2 Revised 01/11/24

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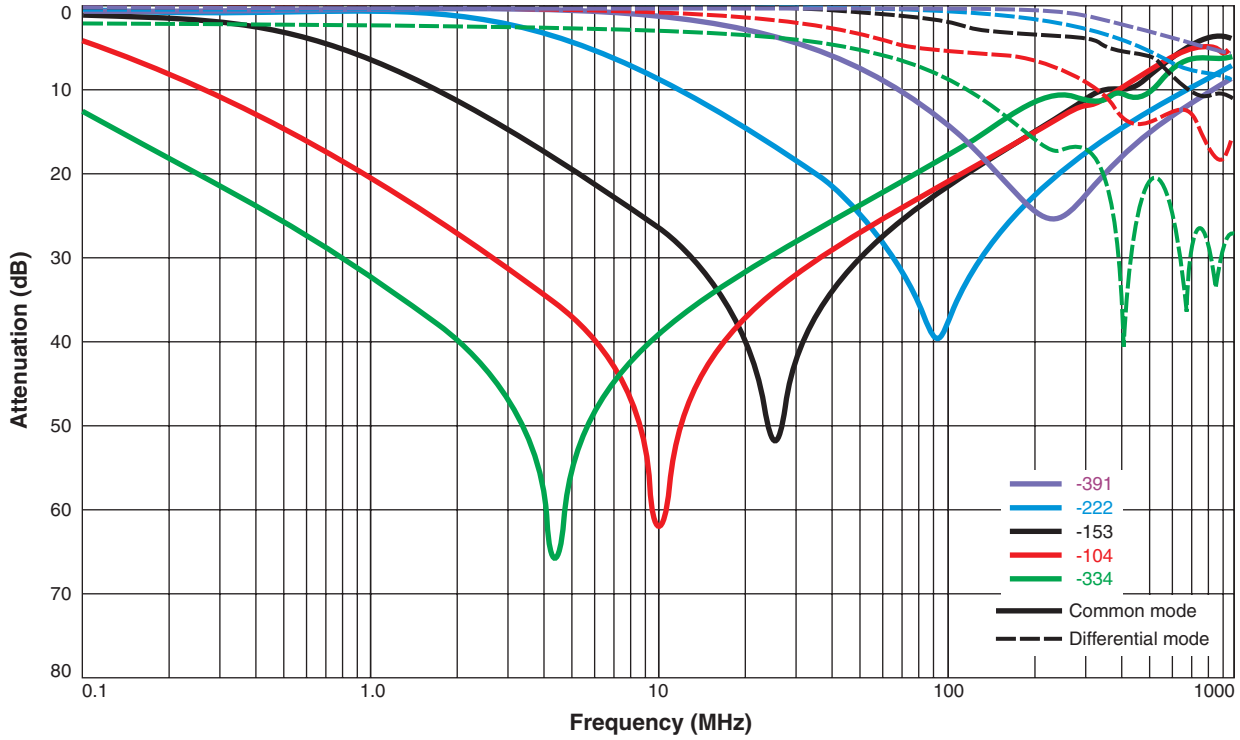
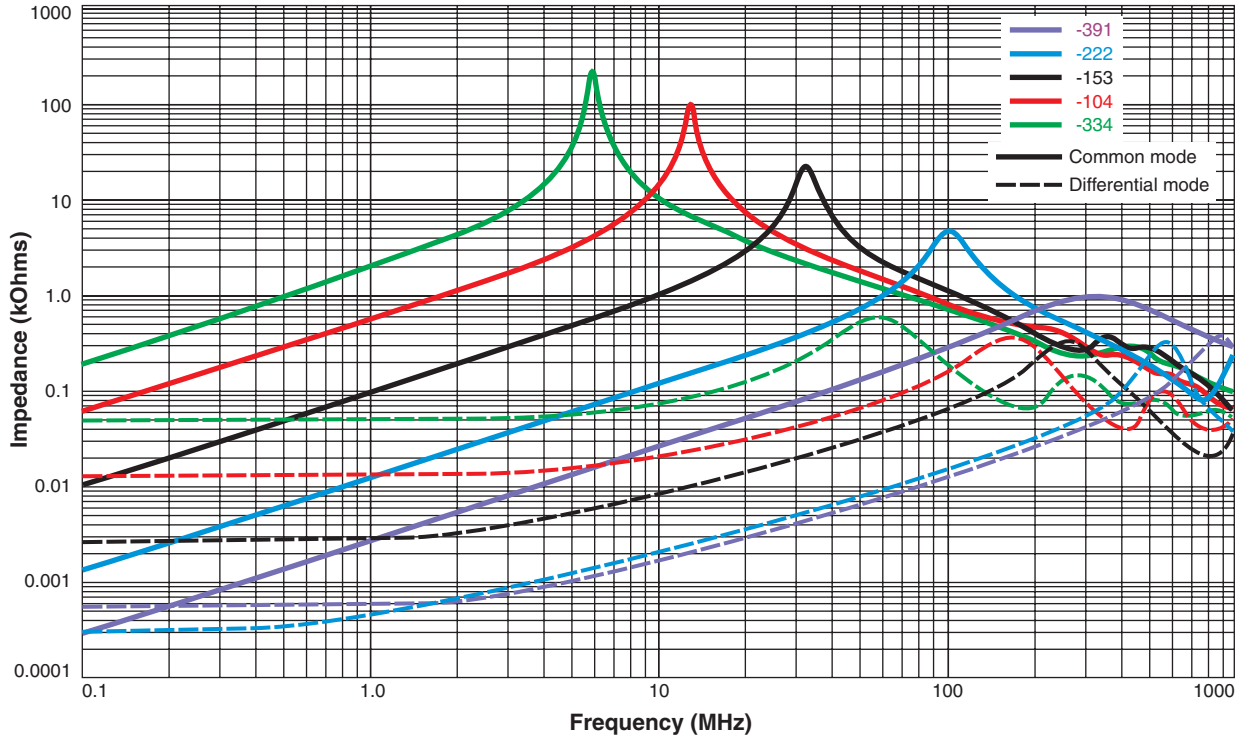
Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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