

Part Number: 2504024717H0

MULTI-LAYER CHIP BEAD



Fair-Rite offers a broad selection of cost effective multi-layer chip beads to suppress conducted EMI signals. Chip beads can be used in an array of devices such as cellular phones, computers, laptops, pagers, etc. The small package sizes accommodate automated placements and allow for a dense packaging of circuit boards.

Chip Beads are available in standard, high and GHz signal speeds.

[Recommended Soldering Profile](#)

Packaging Options:

-All multi-layer chip beads are supplied taped and reeled, if required bulk packed chip beads can be provided.

The suggested land patterns are in accordance to the latest revision of IPC-7351.

EIA Size (Metric Size)	component dimensions *				Wt (g)	Land Patterns **				Tape Width (mm)	Pitch (mm)	Parts/ 7" Reel	Parts/ 13" Reel
	A	B	C	D		V	W(ref)	X	Y				
<b>0402</b> <b>(1005)</b>	0.5±0.05 0.020	0.5±0.05 0.020	1.0±0.05 0.040	0.25±0.15 0.010	0.002	0.40 0.016	1.30 0.051	0.70 0.028	0.90 0.035	8	4	10000	-
<b>0603</b> <b>(1608)</b>	0.8±0.15 0.031	0.8±0.15 0.031	1.6±0.15 0.063	0.4±0.2 0.016	0.006	0.60 0.024	1.70 0.067	1.00 0.039	1.10 0.043	8	4	4000	10000
<b>0805</b> <b>(2012)</b>	0.9±0.2 0.035	1.25±0.2 0.049	2.0±0.2 0.079	0.5±0.3 0.020	0.01	0.60 0.024	1.90 0.075	1.50 0.059	1.30 0.051	8	4	4000	10000
<b>1206</b> <b>(3216)</b>	1.1±0.2 0.043	1.6±0.2 0.063	3.2±0.2 0.126	0.7±0.3 0.028	0.03	1.20 0.047	2.80 0.110	1.80 0.071	1.60 0.063	8	4	3000	10000
<b>1806</b> <b>(4516)</b>	1.6±0.2 0.063	1.6±0.2 0.063	4.5±0.2 0.177	0.7±0.3 0.028	0.06	2.00 0.079	3.90 0.154	1.80 0.071	1.90 0.075	12	8	2000	10000
<b>1812</b> <b>(4532)</b>	1.5±0.2 0.059	3.2±0.2 0.126	4.5±0.2 0.177	0.7±0.3 0.028	0.09	2.00 0.079	3.90 0.154	3.40 0.134	1.90 0.075	12	8	1000	5000
<b>1813</b> <b>(4532)</b>	2.3±0.25 0.091	3.2±0.25 0.126	4.5±0.25 0.177	0.7±0.3 0.028	0.14	2.00 0.079	3.90 0.154	3.40 0.134	1.90 0.075	12	8	-	2500
<b>2218</b> <b>(5650)</b>	1.8±0.25 0.071	5.08±0.25 0.200	5.59±0.51 0.220	0.76±0.35 0.030	0.21	3.00 0.118	6.10 0.240	5.60 0.220	3.10 0.122	12	8	-	2000
<b>2219</b> <b>(5650)</b>	1.97±0.25 0.071	5.08±0.25 0.200	5.59±0.51 0.220	0.76±0.35 0.030	0.23	3.00 0.118	6.10 0.240	5.60 0.220	3.10 0.122	12	8	-	2000
<b>2220</b> <b>(5650)</b>	3.2±0.25 0.126	5.08±0.25 0.200	5.59±0.51 0.220	0.76±0.35 0.030	0.38	3.00 0.118	6.10 0.240	5.60 0.220	3.10 0.122	12	8	-	2000
<b>3312</b> <b>(8530)</b>	2.28±0.2 0.090	3.05±0.2 0.120	8.5±0.2 0.335	1.09±0.4 0.043	0.25	6.00 0.236	9.50 0.374	3.40 0.134	3.60 0.142	16	8	-	2500

\* Fair-Rite sizes "1813", "2218" and "2219" are non standard thicknesses (A dimension).

\*\* For Land Patterns: Fair-Rite's B dimension corresponds to the Land Pattern X dimension

\*\* For Land Patterns: Fair-Rite's C dimension corresponds to the Land Pattern W dimension

Alternate Packaging / Reel Sizes, when available, are special order.

Weight: 0.002 (g)

Package Size: 0402 (1005)

Dim	mm	mm tol	nominal inch	inch misc.
A	0.5	±0.05	0.02	-
B	0.5	±0.05	0.02	-
C	1	±0.05	0.04	-
D	0.25	±0.15	0.01	-

Reel Information				
Tape Width mm	Pitch mm	Parts 7" Reel	Parts 13" Reel	Parts 14" Reel
8	4	10000	-	-

Land Patterns				
V	W	X	Y	Z
0.40 (0.016")	1.30 (0.051")	0.70 (0.028")	0.90 (0.035")	-

### Chart Legend

+ Test frequency

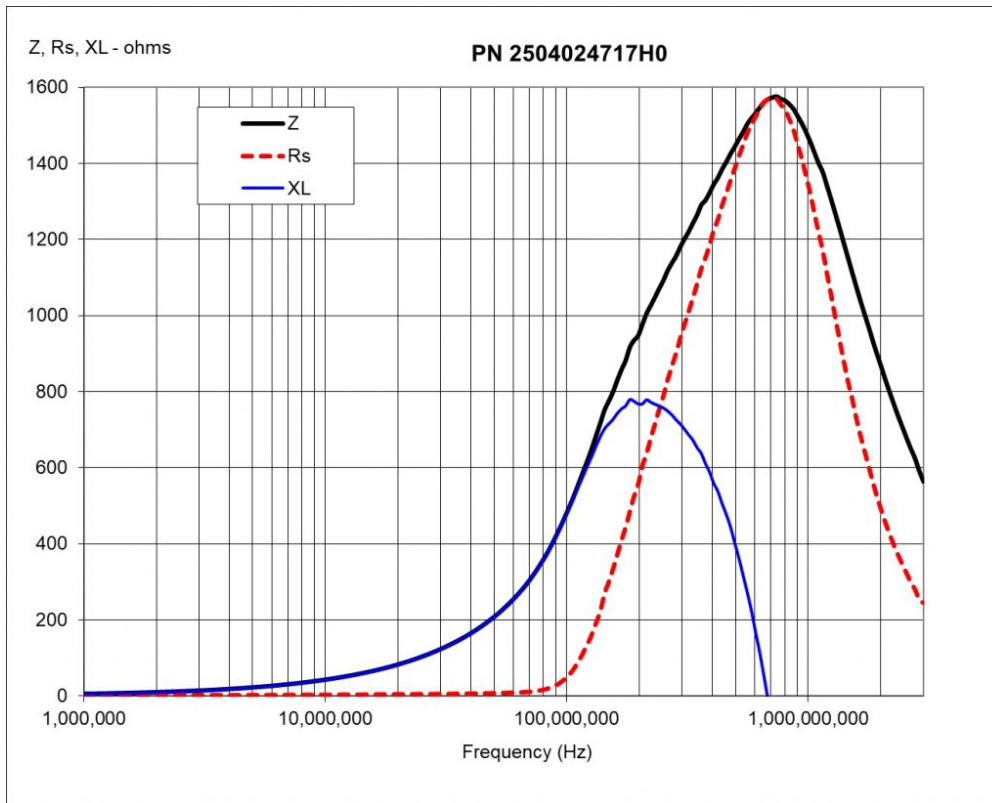
Typical Impedance (Ω)	
50 MHz	210
100 MHz <sup>+</sup>	470
500 MHz	1390
1000 MHz <sup>+</sup>	-

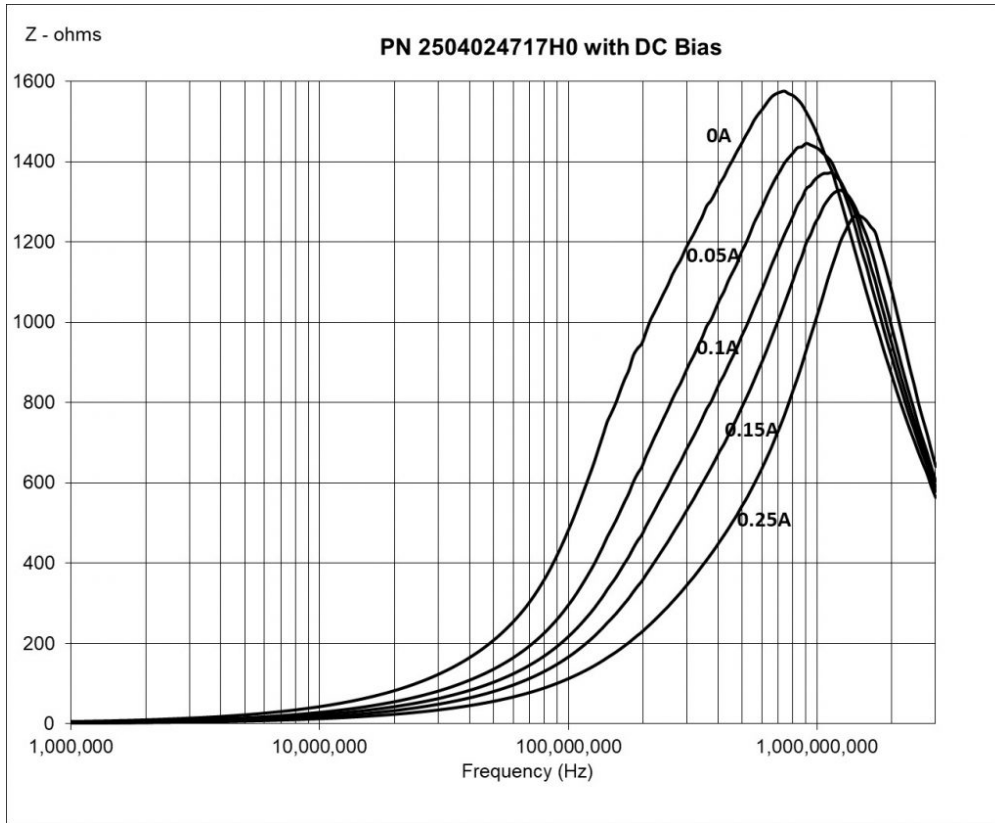
Electrical Properties	
Max DCR (Ω)	1.2
Max Current (mA)	250

The impedance values listed are typical values. The nominal impedance with a +/- 25% tolerance is specified for the + marked 100 MHz. Chip beads are measured for impedance on the HP 4291A and fixture HP 16192A.

Chip beads are 100% tested for impedance and dc resistance.

Typical Impedance ( $\Omega$ )	
50 MHz	210
100 MHz <sup>+</sup>	470
500 MHz	1390
1000 MHz	1900 $\pm$ 40%





[CSV Download](#)

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