Fair-Rite Products Corp.
Your Signal Solution®

# Chip Beads (2522181818Y5)

Part Number: 2522181818Y5

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 | | | | |
| **0402 (1005)** | 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 | - |
| **0603 (1608)** | 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 |
| **0805 (2012)** | 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 |
| **1206 (3216)** | 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 |
| **1806 (4516)** | 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 |
| **1812 (4532)** | 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 |
| **1813 (4532)** | 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 |
| **2218 (5650)** | 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 |
| **2219 (5650)** | 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 |
| **2220 (5650)** | 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 |
| **3312 (8530)** | 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: 0.21 (g)

Package Size: 2218 (5650)

| Dim | mm | mm tol | nominal inch | inch misc. |
|---|---|---|---|---|
| A | 1.8 | ±0.25 | 0.071 | _ |
| B | 5.08 | ±0.25 | 0.200 | _ |
| C | 5.59 | ±0.51 | 0.220 | _ |
| D | 0.76 | ±0.35 | 0.030 | _ |

| Reel Information | | | | |
|---|---|---|---|---|
| Tape Width mm | Pitch mm | Parts 7" Reel | Parts 13" Reel | Parts 14" Reel |
| 12 | 8 | - | 2000 | _ |

| Land Patterns | | | | |
|---|---|---|---|---|
| V | W | X | Y | Z |
| 3.00 (0.118”) | 6.10 (0.240”) | 5.60 (0.220”) | 3.10 (0.122”) | – |

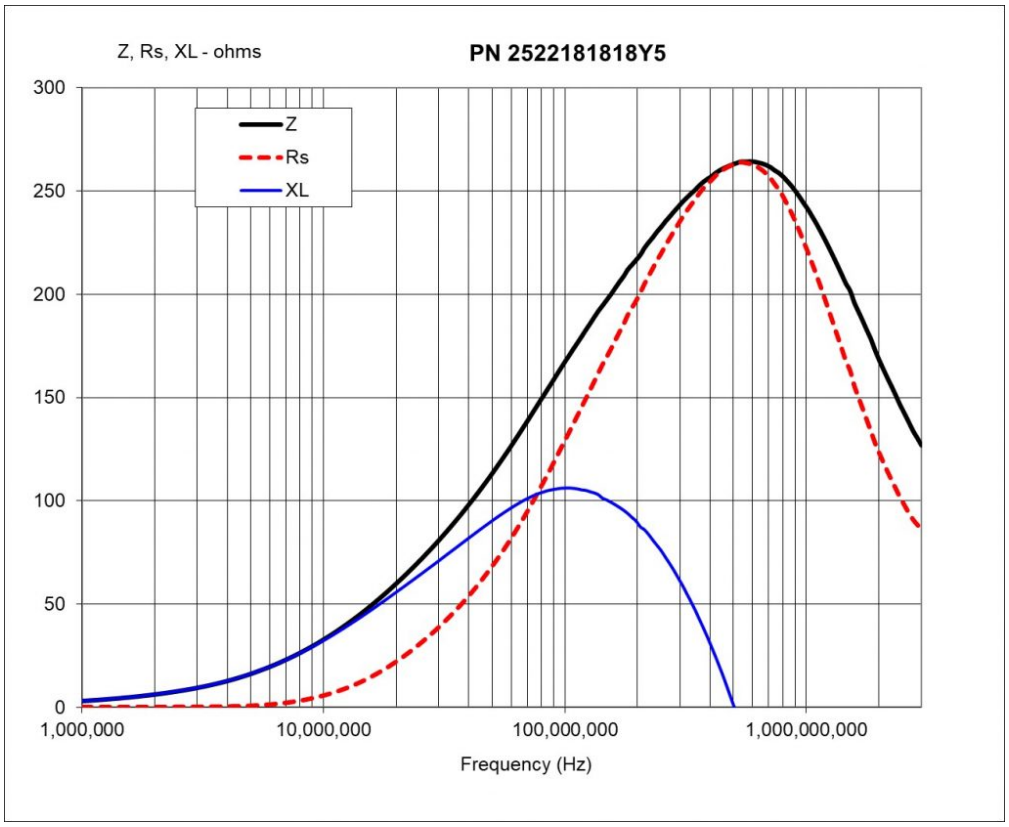
**Chart Legend**
+ Test frequency

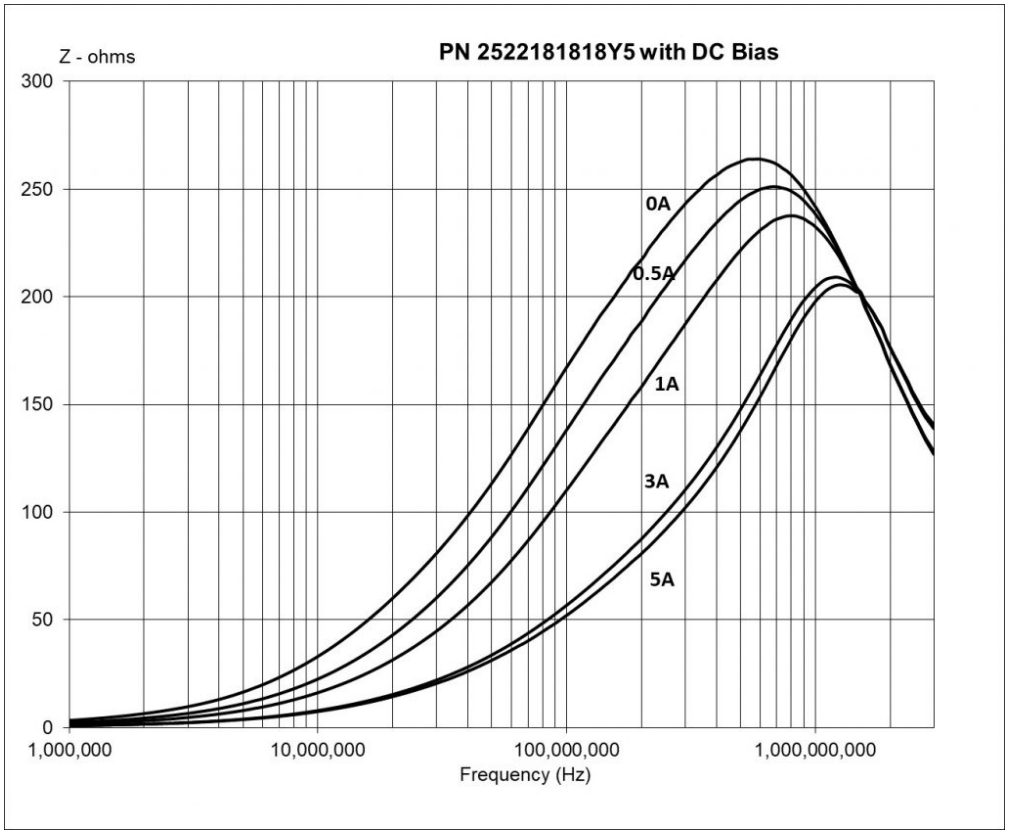
| Typical Impedance (Ω) | |
|---|---|
| 50 MHz | 114 |
| 100 MHz+ | 180 +/-125% |
| 500 MHz | 263 |
| 1000 MHz+ | - |

| Electrical Properties | |
|---|---|
| Max DCR (Ω) | 0.042 |
| Max Current (mA) | 5000 |

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 Impendance (Ω) | |
|---|---|
| 50 MHz | 114 |
| 100 MHz$^{+}$ | 180 |
| 500 MHz | 260 |
| 1000 MHz$^{+}$ | 240 |






CSV Download

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