

Chip Beads

Fair-Rite offers a broad selection of chip beads used to suppress EMI in a wide variety of devices such as computers, cellular phones, digital communication equipment, televisions, pagers, and VCRs.

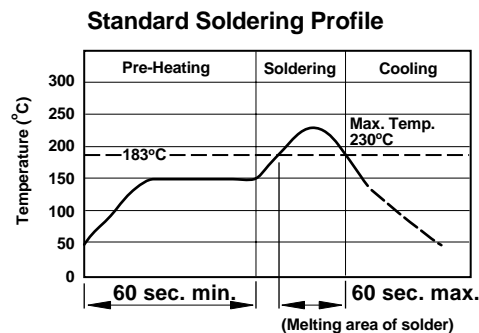
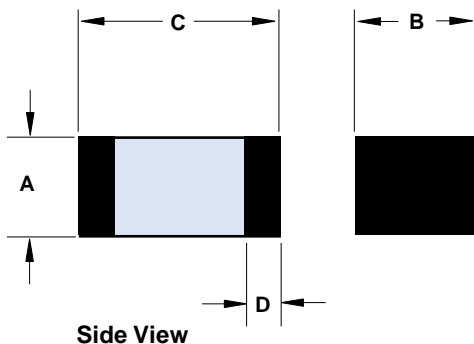
Low current, medium current, and high current chip beads are available. Fair-Rite's chip beads are controlled 100% for impedance and DCR. They are suitable for both wave and reflow solder processes.

Standard and high signal speed parts are available. Standard speed signal chip beads are designed for general noise suppression over a wide frequency range. The high speed signal chip beads offer low impedance at frequencies below 50 MHz and then the impedance increases rapidly to its peak at >100 MHz.

- The 0603 and 0805 beads are supplied 4000 pieces per 7" reel or 10000 pieces per 13" reel. The 1206 beads are supplied 3000 pieces per 7" reel or 10000 pieces per 13" reel. The 1806 beads are supplied 2000 pieces per 7" reel or 10000 pieces per 13" reel. The 1812 beads are supplied 1000 pieces per 7" reel or 5000 pieces per 13" reel.
- The tape width for the 0603, 0805, and 1206 beads is **8mm** with a component pitch of **4mm**. The tape width for the 1806 and 1812 beads is **12mm** with a component pitch of **8mm**.
- The contacts are tin/lead plated. Standard reflow soldering profile is shown below.
- Recommended storage and operating temperature is -55°C to $+125^{\circ}\text{C}$.
- For impedance vs. frequency curves and DC bias curves for these parts, please see Figures 1-61.
- For any chip bead requirement not listed, please contact our customer service group for availability and pricing.
- The Chip Bead Kit (part number 0199000018) is available for prototype evaluation. See page 92.

Part Number System: Example 2512063017Y1

25	1206	301	7	Y	1
Chip Bead Code	Package Size Code	Impedance Code	Packaging Code 6= Bulk Packed 7= Taped and Reeled 7" Reel 8= Taped and Reeled 13" Reel	Material Code Y = Standard Signal Speed Z= High Signal Speed	Current Code 0 < 1.0A 1 \geq 1.0A < 2.0A 3 \geq 3.0A < 4.0A 6 \geq 6.0A < 7.0A



Chip Beads

Low Current Chip Beads (<1 Amp)

Dimensions (Bold numbers are in millimeters, light numbers are in inches.)

Pkg. Size	Dimensions				Wt(g)	Signal Speed	Part Number	Z(Ω) \pm 25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R _s , X _L vs. Frequency Curve	DC Bias Curve
	A	B	C	D								
0603	0.8 \pm0.3 .031	0.8 \pm0.3 .031	1.6 \pm0.15 .063	0.4 \pm0.2 .016	0.006	Standard	2506033007Y0	30	0.1	200	Figure 1A	Figure 1B
							2506036007Y0	60	0.2	200	Figure 2A	Figure 2B
							2506038007Y0	80	0.2	150	Figure 3A	Figure 3B
							2506039007Y0	90	0.2	150	Figure 4A	Figure 4B
							2506031017Y0	100	0.2	150	Figure 5A	Figure 5B
							2506031217Y0	120	0.2	150	Figure 6A	Figure 6B
							2506031517Y0	150	0.3	150	Figure 7A	Figure 7B
							2506033017Y0	300	0.6	100	Figure 8A	Figure 8B
							2506036017Y0	600	0.8	100	Figure 9A	Figure 9B
						2506031027Y0	1000	1	100	Figure 10A	Figure 10B	
						High	2506036007Z0	60	0.5	200	Figure 11A	Figure 11B
							2506031217Z0	120	0.5	150	Figure 12A	Figure 12B
							2506033017Z0	300	0.85	100	Figure 13A	Figure 13B
0805	0.9 \pm0.2 .035	1.25 \pm0.2 .049	2.0 \pm0.2 .079	0.45 \pm0.35 .018	0.01	Standard	2508051107Y0	11	0.1	300	Figure 14A	Figure 14B
							2508053007Y0	30	0.2	300	Figure 15A	Figure 15B
							2508055007Y0	50	0.2	300	Figure 16A	Figure 16B
							2508056007Y0	60	0.2	300	Figure 17A	Figure 17B
							2508059007Y0	90	0.3	300	Figure 18A	Figure 18B
							2508051017Y0	100	0.3	300	Figure 19A	Figure 19B
							2508051217Y0	120	0.3	300	Figure 20A	Figure 20B
							2508051817Y0	180	0.3	300	Figure 21A	Figure 21B
							2508053017Y0	300	0.4	300	Figure 22A	Figure 22B
							2508056017Y0	600	0.6	200	Figure 23A	Figure 23B
							2508051027Y0	1000	0.8	100	Figure 24A	Figure 24B
						2508051527Y0	1500	1	100	Figure 25A	Figure 25B	
						High	2508056007Z0	60	0.3	300	Figure 26A	Figure 26B
							2508051217Z0	120	0.3	300	Figure 27A	Figure 27B
2508053017Z0	300	0.55	100	Figure 28A	Figure 28B							
1206	1.1 \pm0.2 .043	1.6 \pm0.2 .063	3.2 \pm0.2 .126	0.55 \pm0.45 .022	0.03	Standard	2512063007Y0	30	0.1	500	Figure 29A	Figure 29B
							2512065007Y0	50	0.2	400	Figure 30A	Figure 30B
							2512066007Y0	60	0.2	400	Figure 31A	Figure 31B
							2512067007Y0	70	0.2	400	Figure 32A	Figure 32B
							2512068007Y0	80	0.2	400	Figure 33A	Figure 33B
							2512069007Y0	90	0.2	300	Figure 34A	Figure 34B
							2512061017Y0	100	0.2	300	Figure 35A	Figure 35B
							2512061217Y0	120	0.2	300	Figure 36A	Figure 36B
							2512063017Y0	300	0.3	200	Figure 37A	Figure 37B
							2512066017Y0	600	0.6	200	Figure 38A	Figure 38B
							2512061027Y0	1000	0.8	100	Figure 39A	Figure 39B
							2512061527Y0	1500@50 MHz	1	100	Figure 40A	Figure 40B
1806	1.6 \pm0.2 .063	1.6 \pm0.2 .063	4.5 \pm0.2 .177	0.55 \pm0.45 .022	0.06	Standard	2518066007Y0	60	0.2	500	Figure 41A	Figure 41B
							2518067007Y0	70	0.2	500	Figure 42A	Figure 42B
							2518068007Y0	80	0.2	500	Figure 43A	Figure 43B
							2518061017Y0	100	0.3	400	Figure 44A	Figure 44B
							2518061517Y0	150	0.3	400	Figure 45A	Figure 45B
							2518063017Y0	300	0.3	400	Figure 46A	Figure 46B

* Bold part numbers designate preferred parts.

Chip Beads

Medium Current Chip Beads (1-3 Amp)

Dimensions (Bold numbers are in millimeters, light numbers are in inches.)

Pkg. Size	Dimensions				Wt(g)	Signal Speed	Part Number*	Z(Ω) \pm 25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R _s , X _L vs. Frequency Curve	DC Bias Curve
	A	B	C	D								
0603	0.8\pm0.3 .031	0.8\pm0.3 .031	1.6\pm0.15 .063	0.4\pm0.2 .016	0.006	Standard	2506033007Y1	30	0.1	1000	Figure 47A	Figure 47B
0805	0.9\pm0.2 .035	1.25\pm0.2 .049	2.0\pm0.2 .079	0.55\pm0.45 .022	0.01	Standard	2508053007Y3	30	0.04	3000	Figure 48A	Figure 48B
1206	1.1\pm0.2 .043	1.6\pm0.2 .063	3.2\pm0.2 .126	0.55\pm0.45 .022	0.03	Standard	2512061907Y1	19	0.04	1500	Figure 49A	Figure 49B
							2512063007Y3	30	0.04	3000	Figure 50A	Figure 50B
							2512065007Y3	50	0.05	3000	Figure 51A	Figure 51B
							2512067007Y3	70	0.05	3000	Figure 52A	Figure 52B
1806	1.6\pm0.2 .063	1.6\pm0.2 .063	4.5\pm0.2 .177	0.55\pm0.45 .022	0.06	Standard	2518066007Y3	60	0.04	3000	Figure 54A	Figure 54B
							2518068007Y1	80	0.1	1500	Figure 55A	Figure 55B
1812	1.6\pm0.2 .063	3.2\pm0.2 .126	4.5\pm0.2 .177	0.55\pm0.45 .022	0.09	Standard	2518127007Y3	70	0.04	3000	Figure 56A	Figure 56B
							2518121217Y3	120	0.04	3000	Figure 57A	Figure 57B

High Current Chip Beads (>3 Amp)

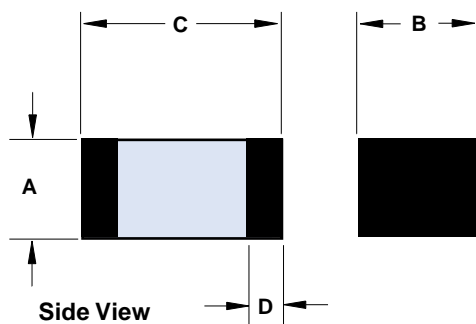
Dimensions (Bold numbers are in millimeters, light numbers are in inches.)

Pkg. Size	Dimensions				Wt(g)	Signal Speed	Part Number*	Z(Ω) \pm 25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R _s , X _L vs. Frequency Curve	DC Bias Curve
	A	B	C	D								
1206	1.1\pm0.2 .043	1.6\pm0.2 .063	3.2\pm0.2 .126	0.6\pm0.2 .024	0.03	Standard	2512065007Y6	50	0.02	6000	Figure 58A	Figure 58B
1806	1.6\pm0.2 .063	1.6\pm0.2 .063	4.5\pm0.2 .177	0.6\pm0.2 .024	0.06	Standard	2518065007Y6	50	0.01	6000	Figure 59A	Figure 59B
							2518068007Y6	80	0.02	6000	Figure 60A	Figure 60B
1812	1.6\pm0.2 .063	3.2\pm0.2 .126	4.5\pm0.2 .177	0.55\pm0.45 .022	0.09	Standard	2518121217Y6	120	0.02	6000	Figure 61A	Figure 61B

* Bold part numbers designate preferred parts.

Part Number System: Example 2512063017Y1

25	1206	301	7	Y	1
Chip Bead Code	Package Size Code	Impedance Code	Packaging Code	Material Code	Current Code
			6= Bulk Packed 7= Taped and Reeled 7" Reel 8= Taped and Reeled 13" Reel	Y = Standard Signal Speed Z = High Signal Speed	0 < 1.0A 1 \geq 1.0A < 2.0A 3 \geq 3.0A < 4.0A 6 \geq 6.0A < 7.0A



Standard Soldering Profile

