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.

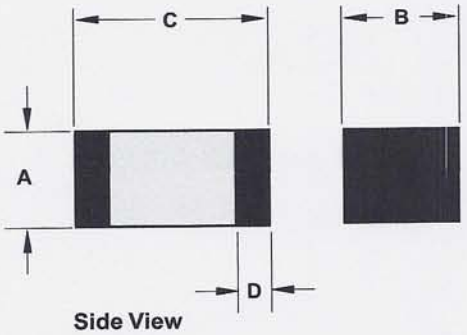
Low current, medium current, and high current chip beads are available. Fair-Rite's chip beads are controlled 100% for impedance and DCR. They are suitable for both wave and reflow solder processes.

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°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.*

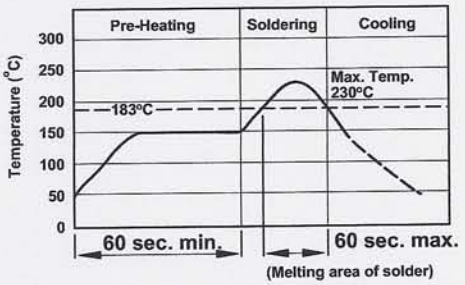
Part Number System: Example 2512063017Y1

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 ≥ 1.0A < 2.0A 3 ≥ 3.0A < 4.0A 6 ≥ 6.0A < 7.0A



Side View

Standard Soldering Profile



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(888) 324-7748 (888) 337-7483 **Note: (914) Area Code has changed to (845).**

Chip Beads

Medium Current Chip Beads (1-3 Amp)

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

Pkg. Size	Dimensions A	B	C	D	Wt(g)	Signal Speed	Part Number*	Z(Ω) ±25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R_s, X_L vs. Frequency Curve	DC Bias Curve
0603	**0.8±0.3** .031	**0.8±0.3** .031	**1.6±0.15** .063	**0.4±0.2** .016	**0.006**	Standard	**2506033007Y1**	30	0.1	1000	Figure 47A	Figure 47B
0805	**0.9±0.2** .035	**1.25±0.2** .049	**2.0±0.2** .079	**0.55±0.45** .022	**0.01**	Standard	**2508053007Y3**	30	0.04	3000	Figure 48A	Figure 48B
1206	**1.1±0.2** .043	**1.6±0.2** .063	**3.2±0.2** .126	**0.55±0.45** .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
							2512066017Y1	600	0.3	1000	Figure 53A	Figure 53B
1806	**1.6±0.2** .063	**1.6±0.2** .063	**4.5±0.2** .177	**0.55±0.45** .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±0.2** .063	**3.2±0.2** .126	**4.5±0.2** .177	**0.55±0.45** .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)

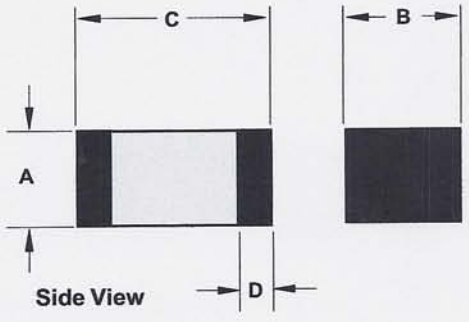
Dimensions (Bold numbers are in millimeters light numbers are in inches)

Pkg. Size	Dimensions A	B	C	D	Wt(g)	Signal Speed	Part Number*	Z(Ω) ±25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R_s, X_L vs. Frequency Curve	DC Bias Curve
1206	**1.1±0.2** .043	**1.6±0.2** .063	**3.2±0.2** .126	**0.6±0.2** .024	**0.03**	Standard	**2512065007Y6**	50	0.02	6000	Figure 58A	Figure 58B
1806	**1.6±0.2** .063	**1.6±0.2** .063	**4.5±0.2** .177	**0.6±0.2** .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±0.2** .063	**3.2±0.2** .126	**4.5±0.2** .177	**0.55±0.45** .022	**0.09**	Standard	**2518121217Y6**	120	0.02	6000	Figure 61A	Figure 61B

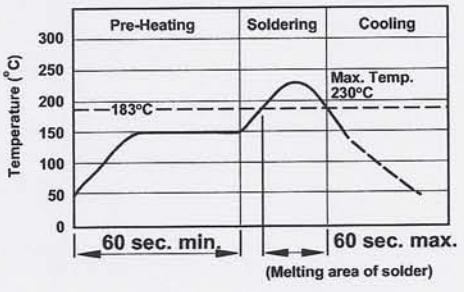
** Bold part numbers designate preferred parts.*

Part Number System: Example 2512063017Y1

25	1206	301	7	Y	1
Chip Bead Code	**Package Size Code**	**Impedance Code**	**Packaging Code** 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 ≥ 1.0A < 2.0A 3 ≥ 3.0A < 4.0A 6 ≥ 6.0A < 7.0A



Standard Soldering Profile



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