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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 100% tested for impedance and dc resistance. They are available in standard, high and GHz signal speeds. The multi-layer chip beads are organized by increasing package size and current carrying capacity.

- All multi-layer chip beads are supplied taped and reeled, if required bulk packed chip beads can be provided.
- 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 have plated contacts, 100% matte tin over a nickel undercoating. They can accommodate both reflow and wave soldering technologies.
- The suggested land patterns are in accordance to the latest revision of IPC-7351.
- Recommended storage and operating temperature range is -55 °C to 125 °C.
- Performance curves for these suppression components are our web site.
- Our "Chip Bead Kit" (part number 0199000018) is available for prototype evaluation.

## Part Number System: Example 2512063017Y1

25	1206	301	7	Y	1
<b>Chip Bead Code</b>	<b>Package Size Code</b>	<b>Impedance Code</b>	<b>Packaging Code</b>	<b>Material Code</b>	<b>Current Code</b>
		300Ω	6= Bulk Packed 7= Taped and Reeled 7" Reel 8= Taped and Reeled 13" Reel	Y = Standard Signal Speed Z = High Signal Speed H = GHz Speed	0 < 1.0A 1 ≥ 1.0A < 2.0A 3 ≥ 3.0A < 4.0A ETC

# Chip Beads

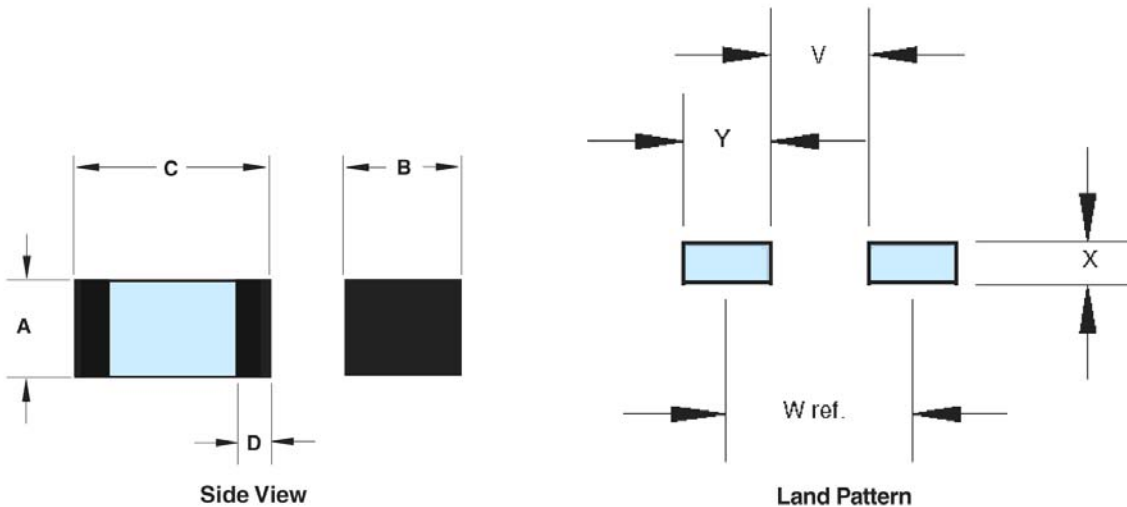


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Legend

Dimensions ( Top numbers are in millimeters, bottom numbers are in nominal inches. )

Pkg. Size	A	B	C	D	Wt. (g)	Land Patterns				Reel Information			
						V	W (ref)	X	Y	Tape Width mm	Pitch mm	Parts 7" Reel	Parts 13" Reel
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



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 (888) 324-7748 (888) 337-7483 E -mail: [ferrites@fair-rite.com](mailto:ferrites@fair-rite.com)

Legend

Chip Beads are listed in ascending order by current, package size, impedance and signal speed. \* Test frequency

## Low Current

Part Number	Pkg. Size	Impedance ( $\Omega$ )					Signal Speed	Max DCR ( $\Omega$ )	Max Current (mA)
		50 MHz	100 MHz <sup>+</sup>	500 MHz	1000 MHz	1000 MHz <sup>+</sup>			
2504021007Y0	0402 (1005)	8	10 $\pm$ 25%	13	14	-	Standard	0.050	500
2504026007Y0	0402 (1005)	48	60 $\pm$ 25%	79	79	-	Standard	0.400	200
2504021217Y0	0402 (1005)	88	120 $\pm$ 25%	170	157	-	Standard	0.500	200
2504023017Y0	0402 (1005)	234	300 $\pm$ 25%	370	264	-	Standard	0.750	100
2504026017Y0	0402 (1005)	421	600 $\pm$ 25%	652	362	-	Standard	1.100	50
2506033007Y0	0603 (1608)	23	30 $\pm$ 25%	46	48	-	Standard	0.100	400
2506036007Y0	0603 (1608)	45	60 $\pm$ 25%	94	82	-	Standard	0.150	400
2506038007Y0	0603 (1608)	59	80 $\pm$ 25%	121	102	-	Standard	0.150	400
2506031017Y0	0603 (1608)	77	100 $\pm$ 25%	144	131	-	Standard	0.150	400
2506031217Y0	0603 (1608)	90	120 $\pm$ 25%	179	142	-	Standard	0.150	400
2506031517Y0	0603 (1608)	109	150 $\pm$ 25%	224	179	-	Standard	0.150	400
2506033017Y0	0603 (1608)	213	300 $\pm$ 25%	326	205	-	Standard	0.300	400
2506036017Y0	0603 (1608)	426	600 $\pm$ 25%	405	226	-	Standard	0.350	400
2506031027Y0	0603 (1608)	653	1000 $\pm$ 25%	241	110	-	Standard	0.550	300
2506036007Z0	0603 (1608)	28	60 $\pm$ 25%	145	96	-	High	0.250	450
2506031217Z0	0603 (1608)	60	120 $\pm$ 25%	278	192	-	High	0.300	450
2506033017Z0	0603 (1608)	112	300 $\pm$ 25%	314	142	-	High	0.350	450
2506030707H0	0603 (1608)	4	7 $\pm$ 25%	30	38	-	GHz	0.100	700
2506031007H0	0603 (1608)	5	10 $\pm$ 25%	43	50	-	GHz	0.100	700
2506031217H0	0603 (1608)	50	120 $\pm$ 25%	600	-	500 $\pm$ 40%	GHz	0.500	200
2506032217H0	0603 (1608)	100	220 $\pm$ 25%	800	-	1100 $\pm$ 40%	GHz	0.800	100
2506033317H0	0603 (1608)	150	330 $\pm$ 25%	1300	-	1300 $\pm$ 40%	GHz	1.200	50
2506031027H0	0603 (1608)	500	1000 $\pm$ 25%	1800	-	1600 $\pm$ 40%	GHz	1.000	100
2508051107Y0	0805 (2012)	8	11 $\pm$ 25%	16	16	-	Standard	0.100	300
2508053007Y0	0805 (2012)	22	30 $\pm$ 25%	46	49	-	Standard	0.100	300
2508055007Y0	0805 (2012)	36	50 $\pm$ 25%	73	76	-	Standard	0.150	300

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Part Number	Pkg. Size	Impedance ( $\Omega$ )					Signal Speed	Max DCR ( $\Omega$ )	Max Current (mA)
		50 MHz	100 MHz <sup>+</sup>	500 MHz	1000 MHz	1000 MHz <sup>+</sup>			
2508056007Y0	0805 (2012)	45	60 $\pm$ 25%	88	89	-	Standard	0.150	300
2508059007Y0	0805 (2012)	68	90 $\pm$ 25%	125	107	-	Standard	0.200	300
2508051017Y0	0805 (2012)	75	100 $\pm$ 25%	134	120	-	Standard	0.200	300
2508051217Y0	0805 (2012)	89	120 $\pm$ 25%	172	127	-	Standard	0.200	300
2508051817Y0	0805 (2012)	134	180 $\pm$ 25%	198	111	-	Standard	0.200	300
2508053017Y0	0805 (2012)	216	300 $\pm$ 25%	161	84	-	Standard	0.250	300
2508056017Y0	0805 (2012)	428	600 $\pm$ 25%	284	141	-	Standard	0.350	300
2508051027Y0	0805 (2012)	688	1000 $\pm$ 25%	300	148	-	Standard	0.450	300
2508051527Y0	0805 (2012)	989	1500 $\pm$ 25%	235	118	-	Standard	0.700	300
2508056007Z0	0805 (2012)	28	60 $\pm$ 25%	111	122	-	High	0.150	300
2508051217Z0	0805 (2012)	45	120 $\pm$ 25%	253	191	-	High	0.200	250
2508053017Z0	0805 (2012)	118	300 $\pm$ 25%	280	139	-	High	0.250	200
2508052027Z0	0805 (2012)	440	2000 $\pm$ 25%	160	80	-	High	0.400	200
2512063007Y0	1206 (3216)	21	30 $\pm$ 25%	49	52	-	Standard	0.100	800
2512065007Y0	1206 (3216)	38	50 $\pm$ 25%	68	67	-	Standard	0.150	800
2512067007Y0	1206 (3216)	53	70 $\pm$ 25%	101	102	-	Standard	0.150	500
2512069007Y0	1206 (3216)	72	90 $\pm$ 25%	121	113	-	Standard	0.200	450
2512061017Y0	1206 (3216)	72	100 $\pm$ 25%	127	86	-	Standard	0.200	450
2512061217Y0	1206 (3216)	87	120 $\pm$ 25%	151	109	-	Standard	0.200	450
2512063017Y0	1206 (3216)	203	300 $\pm$ 25%	233	118	-	Standard	0.200	350
2512066017Y0	1206 (3216)	581	600 $\pm$ 25%	116	67	-	Standard	0.250	350
2512061027Y0	1206 (3216)	784	1000 $\pm$ 25%	230	117	-	Standard	0.350	350
2512061527Y0	1206 (3216)	1600	1500 $\pm$ 25%	120	25	-	Standard	0.400	350
2518061017Y0	1806 (4516)	73	100 $\pm$ 25%	153	155	-	Standard	0.300	400
2518061517Y0	1806 (4516)	110	150 $\pm$ 25%	205	167	-	Standard	0.500	200

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## Medium Current

Part Number	Pkg. Size	Impedance ( $\Omega$ )				Signal Speed	Max DCR ( $\Omega$ )	Max Current (mA)
		50 MHz	100 MHz <sup>+</sup>	500 MHz	1000 MHz			
2506033007Y3	0603 (1608)	23	30 $\pm$ 25%	40	41	Standard	0.040	3000
2506036007Y3	0603 (1608)	48	60 $\pm$ 25%	84	81	Standard	0.040	3000
2506031217Y2	0603 (1608)	90	120 $\pm$ 25%	170	152	Standard	0.050	2000
2508053007Y3	0805 (2012)	23	30 $\pm$ 25%	41	41	Standard	0.030	3000
2508056007Y3	0805 (2012)	49	60 $\pm$ 25%	84	84	Standard	0.040	3000
2508051217Y3	0805 (2012)	91	120 $\pm$ 25%	165	135	Standard	0.050	3000
2508053017Y3	0805 (2012)	239	300 $\pm$ 25%	218	117	Standard	0.050	3000
2508056017Y2	0805 (2012)	449	600 $\pm$ 25%	293	159	Standard	0.100	2000
2508051027Y1	0805 (2012)	764	1000 $\pm$ 25%	402	216	Standard	0.300	1000
2508052027Y1	0805 (2012)	599	2000 $\pm$ 25%	350	189	Standard	0.300	1000
2512063007Y3	1206 (3216)	24	30 $\pm$ 25%	40	38	Standard	0.030	3000
2512065007Y3	1206 (3216)	39	50 $\pm$ 25%	69	70	Standard	0.030	3000
2512067007Y3	1206 (3216)	53	70 $\pm$ 25%	102	103	Standard	0.040	3000
2512061517Y3	1206 (3216)	120	150 $\pm$ 25%	173	130	Standard	0.050	3000
2512063017Y3	1206 (3216)	212	300 $\pm$ 25%	150	88	Standard	0.060	3000
2512066017Y1	1206 (3216)	460	600 $\pm$ 25%	260	120	Standard	0.080	1000
2512061027Y1	1206 (3216)	925	1000 $\pm$ 25%	210	117	Standard	0.300	1000
2518066007Y3	1806 (4516)	44	60 $\pm$ 25%	91	94	Standard	0.040	3000
2518068007Y3	1806 (4516)	64	80 $\pm$ 25%	114	114	Standard	0.040	3000
2518127007Y3	1812 (4532)	54	70 $\pm$ 25%	96	96	Standard	0.040	3000
2518121217Y3	1812 (4532)	92	120 $\pm$ 25%	150	106	Standard	0.040	3000