



JOYIN JCR Series



JCR Series Ordering Code

JCR Ordering Code Description																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
J	C	R	1	0	3	F	3	4	4	F	B	5	2	P	U	5	0	3	Y
	①			②		③		④		⑤	⑥	⑦	⑧	⑨	⑩		Ⓐ		Ⓑ

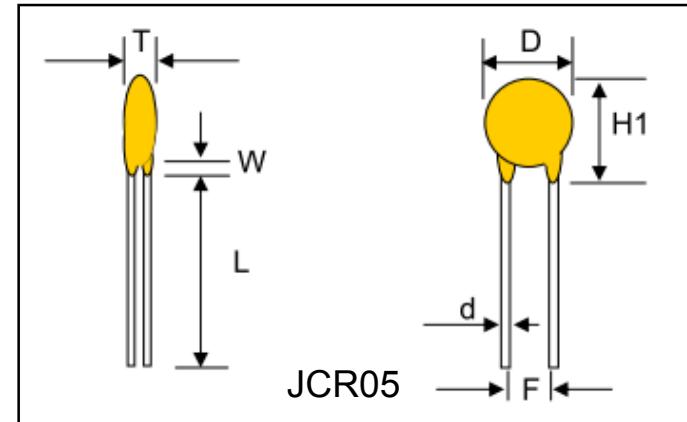
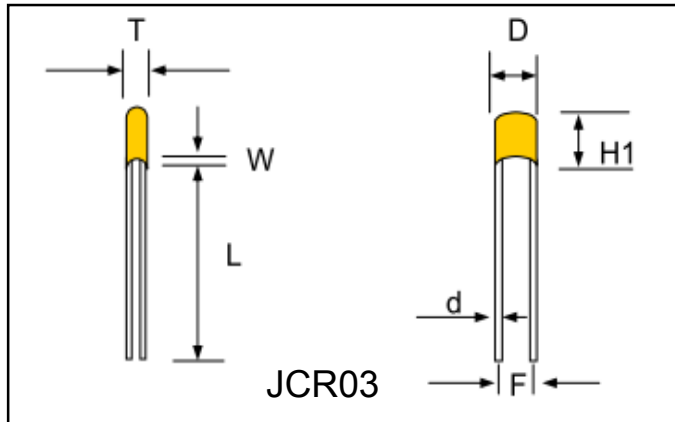


1	Series NO.	JCR	5	B Value tolerance	F = ±1% G = ±2% H = ±3% J = ±5%	9	Lead Style	P=Straight G=Wide
2	R Value at 25°C	502 = 5KΩ 103 = 10KΩ 474 = 470KΩ	6	B Value definition	A = 25 / 50 B = 25 / 85	10	Lead Length and Packaging	U5=25mm AM=H0:18mm for Ammo
3	R tolerance at 25°C	F = ±1% G = ±2% H = ±3% J = ±5% K = ±10%	7	Lead Diameter	5 = 0.5mm	A	Disc Dia.	03= 3mm 05= 5mm
4	B Value	344 = 3435 K 405 = 4050 K	8	Lead Spacing	2 = 2.5mm 4 = 3.5mm	B	Optional Suffix	Internal Control Code

For Example:

JCR103F344FB52PU503 / JCR104J440HA54PU505Y

JCR



Unit : mm

Chip Size	Dmax	Tmax	F	d	L min	W max	H1 max
3	3.8	3	2.5±0.5	0.5±0.05	25	3	7
5	6	3.5	3.5±1	0.5±0.05	25	3	8

Electrical Characteristics

	Max. Power Rating at 25°C	Dissipation Factor	Thermal Time Constant	Operating Temperature Range
Chip Size	P max (mW)	δ (mW/°C)	τ (sec.)	T L ~ T U (°C)
JCR03	120	Approx. 3.0	Approx. 15	-40 ~ +125
JCR05	450	Approx. 7.5	Approx. 18	-40 ~ +125



JCR03 Electrical Characteristics

Part No.	R25 (Ω)	R Tolerance (%)	B 25/50 (K)	B 25/85 (K)	B Tolerance (%)	Chip Size (mm)
JCR103X338YA	10000	10,5,3,2,1	3380		5,3,2,1	3
JCR103X344YB	10000	10,5,3,2,1		3435	5,3,2,1	3
JCR103X397YB	10000	10,5,3,2,1		3970	5,3,2,1	3
JCR204X406YB	200000	10,5,3,2,1		4060	5,3,2,1	3
JCR473X395YB	47000	10,5,3,2,1		3950	5,3,2,1	3
JCR473X405YB	47000	10,5,3,2,1		4050	5,3,2,1	3
JCR104X395YB	100000	10,5,3,2,1		3950	5,3,2,1	3
JCR104X405YB	100000	10,5,3,2,1		4050	5,3,2,1	3
JCR104X440YB	100000	10,5,3,2,1		4400	5,3,2,1	3

※ X : R Tolerance , Y : B Value Tolerance



JCR 03 Series R/T Table

JOYIN TEMP °C	JCR103X338Y	JCR103X344Y	JCR473X395Y	JCR473X405Y	JCR104X398Y	JCR104X405Y	JCR104X440Y	JCR204X406Y
	B25/50	B25/85	B25/85	B25/85	B25/85	B25/85	B25/85	B25/85
	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)
-40	178.764	178.764	1556.804	1518.120	2674.077	2868.371	4572.000	8866.341
-35	137.502	137.502	1126.322	1106.114	1994.768	2193.382	3197.096	6154.043
-30	106.073	106.073	821.632	813.573	1501.065	1661.225	2268.652	4336.094
-25	82.329	82.329	605.033	603.851	1138.073	1254.129	1630.954	3098.593
-20	64.403	64.403	449.976	452.107	868.726	947.788	1186.288	2243.858
-15	50.814	50.814	338.019	341.337	667.340	719.021	872.016	1645.340
-10	40.442	40.442	256.419	259.786	515.770	548.508	647.200	1220.777
-5	32.458	32.458	196.362	199.254	401.005	421.177	484.614	915.906
0	26.256	26.256	151.727	153.968	313.613	325.687	365.866	694.439
5	21.392	21.392	118.238	119.830	246.699	253.662	278.350	531.788
10	17.544	17.544	92.878	93.909	195.185	198.977	213.315	411.090
15	14.472	14.472	73.505	74.087	155.311	157.165	164.616	320.638
20	12.002	12.002	58.583	58.826	124.280	124.968	127.887	252.217
25	10.000	10.000	47.000	47.000	100.000	100.000	100.000	200.000
30	8.367	8.367	37.942	37.777	80.899	80.505	78.692	159.812
35	7.028	7.028	30.810	30.541	65.792	65.185	62.311	128.632
40	5.924	5.924	25.157	24.830	53.779	53.070	49.646	104.256
45	5.010	5.010	20.651	20.296	44.176	43.433	39.798	85.059
50	4.249	4.249	17.038	16.678	36.459	35.724	32.100	69.835
55	3.615	3.615	14.125	13.775	30.228	29.526	26.050	57.681
60	3.084	3.084	11.765	11.433	25.169	24.518	21.271	47.917
65	2.638	2.638	9.843	9.535	21.044	20.452	17.476	40.025
70	2.262	2.262	8.271	7.989	17.664	17.136	14.449	33.608
75	1.946	1.946	6.980	6.724	14.881	14.421	12.021	28.362
80	1.678	1.678	5.915	5.683	12.580	12.189	10.065	24.050
85	1.451	1.451	5.033	4.825	10.670	10.346	8.482	20.488
90	1.258	1.258	4.300	4.112	9.078	8.818	7.195	17.531
95	1.095	1.095	3.688	3.519	7.746	7.548	6.143	15.064
100	0.955	0.955	3.175	3.024	6.627	6.488	5.280	12.997
105	0.836	0.836	2.744	2.607	5.684	5.601	4.569	11.258
110	0.734	0.734	2.380	2.257	4.887	4.854	3.981	9.787
115	0.646	0.646	2.072	1.960	4.210	4.225	3.492	8.540
120	0.571	0.571	1.811	1.709	3.635	3.693	3.085	7.478
125	0.506	0.506	1.588	1.494	3.144	3.242	2.745	6.569



JCR 03 Series R/T Table

JOYIN TEMP °C	JCR103X338Y	JCR103X344Y	JCR473X395Y	JCR473X405Y	JCR104X398Y	JCR104X405Y	JCR104X440Y	JCR204X406Y
	B25/50	B25/85	B25/85	B25/85	B25/85	B25/85	B25/85	B25/85
	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)
-40	178.764	178.764	1556.804	1518.120	2674.077	2868.371	4572.000	8866.341
-35	137.502	137.502	1126.322	1106.114	1994.768	2193.382	3197.096	6154.043
-30	106.073	106.073	821.632	813.573	1501.065	1661.225	2268.652	4336.094
-25	82.329	82.329	605.033	603.851	1138.073	1254.129	1630.954	3098.593
-20	64.403	64.403	449.976	452.107	868.726	947.788	1186.288	2243.858
-15	50.814	50.814	338.019	341.337	667.340	719.021	872.016	1645.340
-10	40.442	40.442	256.419	259.786	515.770	548.508	647.200	1220.777
-5	32.458	32.458	196.362	199.254	401.005	421.177	484.614	915.906
0	26.256	26.256	151.727	153.968	313.613	325.687	365.866	694.439
5	21.392	21.392	118.238	119.830	246.699	253.662	278.350	531.788
10	17.544	17.544	92.878	93.909	195.185	198.977	213.315	411.090
15	14.472	14.472	73.505	74.087	155.311	157.165	164.616	320.638
20	12.002	12.002	58.583	58.826	124.280	124.968	127.887	252.217
25	10.000	10.000	47.000	47.000	100.000	100.000	100.000	200.000
30	8.367	8.367	37.942	37.777	80.899	80.505	78.692	159.812
35	7.028	7.028	30.810	30.541	65.792	65.185	62.311	128.632
40	5.924	5.924	25.157	24.830	53.779	53.070	49.646	104.256
45	5.010	5.010	20.651	20.296	44.176	43.433	39.798	85.059
50	4.249	4.249	17.038	16.678	36.459	35.724	32.100	69.835
55	3.615	3.615	14.125	13.775	30.228	29.526	26.050	57.681
60	3.084	3.084	11.765	11.433	25.169	24.518	21.271	47.917
65	2.638	2.638	9.843	9.535	21.044	20.452	17.476	40.025
70	2.262	2.262	8.271	7.989	17.664	17.136	14.449	33.608
75	1.946	1.946	6.980	6.724	14.881	14.421	12.021	28.362
80	1.678	1.678	5.915	5.683	12.580	12.189	10.065	24.050
85	1.451	1.451	5.033	4.825	10.670	10.346	8.482	20.488
90	1.258	1.258	4.300	4.112	9.078	8.818	7.195	17.531
95	1.095	1.095	3.688	3.519	7.746	7.548	6.143	15.064
100	0.955	0.955	3.175	3.024	6.627	6.488	5.280	12.997
105	0.836	0.836	2.744	2.607	5.684	5.601	4.569	11.258
110	0.734	0.734	2.380	2.257	4.887	4.854	3.981	9.787
115	0.646	0.646	2.072	1.960	4.210	4.225	3.492	8.540
120	0.571	0.571	1.811	1.709	3.635	3.693	3.085	7.478
125	0.506	0.506	1.588	1.494	3.144	3.242	2.745	6.569



JCR05 Electrical Characteristics

Part No.	R25 (Ω)	R Tolerance (%)	B 25/50 (K)	B 25/85 (K)	B Tolerance (%)	Chip Size (mm)
JCR682X405YA	6800	10,5	4050		5,3	5
JCR103X405YA	10000	10,5	4050		5,3	5
JCR103X410YA	10000	10,5	4100		5,3	5
JCR104X440YA	100000	10,5	4400		5,3	5
JCR474X520YA	470000	10,5	5200		5,3	5
JCR103X415YB	10000	10,5		4150	5,3	5
JCR204X470YB	200000	10,5		4700	5,3	5

※ X : R Tolerance , Y : B Value Tolerance



JOYIN

JCR05 Electrical Characteristics

TEMP °C	JCR103X410YA	JCR104X440YA	JCR474X520YA	JCR204X470YB		
	B25/50	B25/50	B25/50	B25/85		
	Center (KΩ)	Center (KΩ)	Center (KΩ)	Center (KΩ)		
-40	287.669	4231.544	31890.357	10624.052		
-35	218.316	3107.665	22300.174	7390.256		
-30	164.505	2254.797	15662.690	5159.832		
-25	123.865	1632.599	11055.246	3639.496		
-20	93.563	1186.936	7845.074	2600.057		
-15	71.062	869.514	5598.757	1881.942		
-10	54.332	642.960	4019.349	1379.014		
-5	41.836	480.181	2903.105	1021.704		
0	32.443	362.148	2109.900	764.352		
5	25.331	275.672	1543.055	576.690		
10	19.907	211.643	1135.619	438.361		
15	15.738	163.744	841.033	335.447		
20	12.512	127.566	626.772	258.271		
25	10.000	100.000	470.000	200.000		
30	8.031	78.830	354.607	155.738		
35	6.480	62.459	269.167	121.935		
40	5.252	49.722	205.532	95.989		
45	4.275	39.759	157.860	75.976		
50	3.495	31.929	121.943	60.466		
55	2.870	25.750	94.727	48.388		
60	2.367	20.855	73.991	38.936		
65	1.961	16.964	58.106	31.503		
70	1.632	13.861	45.871	25.627		
75	1.364	11.378	36.398	20.957		
80	1.146	9.386	29.026	17.226		
85	0.968	7.782	23.260	14.229		
90	0.822	6.488	18.728	11.809		
95	0.701	5.439	15.149	9.842		
100	0.602	4.588	12.310	8.236		
105	0.519	3.893	10.046	6.917		
110	0.451	3.326	8.234	5.828		
115	0.394	2.860	6.777	4.925		
120	0.346	2.477	5.601	4.171		
125	0.306	2.161	4.646	3.539		