Type 150 Axial Leaded Metallized Polyester

Flame Retardant Wrap and Fill Axial Leaded Capacitors



The Type 150 series axial lead metallized polyester non inductive capacitors are available in bulk or on tape and reel for automatic insertion. Type 150 is a general purpose capacitor for use in blocking, bypass, decoupling, smoothing and some timing applications.

Highlights

- Available on tape and reel or bulk
- Epoxy end fill meets UL94V-0
- Non inductively wound
- Flame retardant outer wrap meets UL510
- Non polar

Specifications

Capacitance Range: 0.001 µF to 10.0 µF

Voltage Range: 63 to 1000 Vdc

Capacitance Tolerance: ±5%, ±10%, ±20%

Operating Tempeature Range: –55 °C to +125 °C (derate linearly to 50% rated voltage at 125 °C)

Dielectric Withstand Voltage: 1.6 x rated voltage for 2 s @ +25 °C ±5 °C

Dissipation Factor (DF): tgδ x 10^{-4} at +25 °C ±5 °C

kHz	C ≤0.1 µF	0.1 µF <C ≤1 µF	C >1 µF
1	80	80	100
10	150	150	—
100	250	—	—

Insulation Resistance: 10,000 MΩ x µF, 30,000 MΩ Min.

Self Inductance: 1 nH max. per 1 mm lead and body length

Life Test: 1000 hrs @ 85 °C 1.25 x Vn

Damp Heat Test: 95% RH @ +45 °C for 21 days

Soldering: 260 °C ±5 °C for 10 s ±1 s

Long Term Storage Stability: ΔC/C ≤ ±3% after 2 years

Maximum Pulse Rise Time dv/dt and Pulse Characteristic (Wo):

V/n	L Max				
	16.5	19 - 20.5	26.5 - 5.28	31.5 - 33	
50 - 63	4 504	2 252	1.5 189	1 126	dV/dt (V/µsec) W_o (V^2/µsec)
100	5 1,000	3 600	2 400	1 300	
250	10 5,000	7 3,500	4 2,000	2.5 1,250	
400	13.5 10,800	10 8,000	6.5 5,200	4 3,200	
630	20 25,200	15 18,900	10 12,600	6 7,500	

RoHS Compliant

Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

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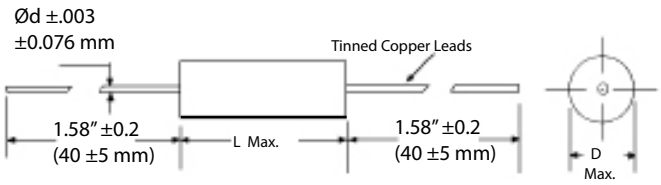
Tape and Reel Specifications

L Max (Body Lengty)		Lead Spacing		Distance Between Reel Flanges		Class
Inches	mm	Inches	mm	Inches	mm	
≤.433	≤11	2.06	52.4	3	75	1
.551 - .808	14 - 20.5	2.5	63.6	3.4	86	2
≥1.03	≥26	2.87	73	3.7	95	3

^Add class number (1, 2, or 3) to catalog number to indicate tape and reel

Diameter		Quantity per Reel
Inches	mm	
0.197	5	3,000
.236 thru .256	6.0 trhu 6.5	1,200
0.276	7	1,100
.315 thru .346	8 thru 8.5	800
.354 thru .413	9 thru 10.5	500
.433 thru .512	11 thru 13	300
.551 thru .571	14 thru 14.5	200
>.571	>14.5	Not available

Outline Drawing



Ratings

Catalog Part Number	Cap (µF)	Inches Max D	Inches Max L	Inches Max Ød	Millimeters Max D	Millimeters Max L	Millimeters Max Ød
63 Vdc							
150154*63AA^	0.150	0.197	0.433	0.024	5.0	11.0	0.6
150154*63BB^	0.150	0.236	0.650	0.024	6.0	16.5	0.6
150184*63AA^	0.180	0.197	0.433	0.024	5.0	11.0	0.6
150184*63BB^	0.180	0.236	0.650	0.024	6.0	16.5	0.6
150224*63BB^	0.220	0.236	0.650	0.024	6.0	16.5	0.6
150274*63BB^	0.270	0.236	0.650	0.024	6.0	16.5	0.6
150334*63BB^	0.330	0.236	0.650	0.024	6.0	16.5	0.6
150394*63CB^	0.390	0.256	0.650	0.024	6.5	16.5	0.6
150474*63DB^	0.470	0.276	0.650	0.024	7.0	16.5	0.6
150564*63DB^	0.560	0.276	0.650	0.024	7.0	16.5	0.6
150684*63DC^	0.680	0.276	0.807	0.024	7.0	20.5	0.6
150824*63EC^	0.820	0.315	0.807	0.031	8.0	20.5	0.8
150105*63EC^	1.000	0.315	0.807	0.031	8.0	20.5	0.8
150155*63HC^	1.500	0.374	0.807	0.031	9.5	20.5	0.8
150225*63HE^	2.200	0.374	1.102	0.031	9.5	28.0	0.8
150335*63KE^	3.300	0.433	1.102	0.031	11.0	28.0	0.8
150475*63ME^	4.700	0.492	1.102	0.031	12.5	28.0	0.8
150685*63QF^	6.800	0.571	1.299	0.031	14.5	33.0	0.8
150106*63TF^	10.000	0.610	1.299	0.031	15.5	33.0	0.8
100 Vdc							
150683*100AA^	0.068	0.197	0.433	0.024	5.0	11.0	0.6
150683*100BB^	0.068	0.236	0.650	0.024	6.0	16.5	0.6
150823*100AA^	0.082	0.197	0.433	0.024	5.0	11.0	0.6
150823*100BB^	0.082	0.236	0.650	0.024	6.0	16.5	0.6
150104*100AA^	0.100	0.197	0.433	0.024	5.0	11.0	0.6
150104*100BB^	0.100	0.236	0.650	0.024	6.0	16.5	0.6
150124*100BB^	0.120	0.236	0.650	0.024	6.0	16.5	0.6
150154*100BB^	0.150	0.236	0.650	0.024	6.0	16.5	0.6
150184*100CB^	0.180	0.256	0.650	0.024	6.5	16.5	0.6
150224*100CB^	0.220	0.256	0.650	0.024	6.5	16.5	0.6
150274*100CB^	0.270	0.256	0.650	0.024	6.5	16.5	0.6
150334*100EB^	0.330	0.315	0.650	0.031	8.0	16.5	0.8
150394*100EB^	0.390	0.315	0.650	0.031	8.0	16.5	0.8
150474*100DC^	0.470	0.276	0.807	0.031	7.0	20.5	0.8
150564*100EC^	0.560	0.315	0.807	0.031	8.0	20.5	0.8
150684*100FC^	0.680	0.335	0.807	0.031	8.5	20.5	0.8
150824*100HC^	0.820	0.374	0.807	0.031	9.5	20.5	0.8
150105*100IC^	1.000	0.394	0.807	0.031	10.0	20.5	0.8
100 Vdc							
150155*100IE^	1.500	0.394	1.102	0.031	10.0	28.0	0.8
150225*100LE^	2.200	0.453	1.102	0.031	11.5	28.0	0.8
150335*100PE^	3.300	0.531	1.102	0.031	13.5	28.0	0.8
150475*100RF^	4.700	0.591	1.299	0.031	15.0	33.0	0.8
150685*100WF^	6.800	0.689	1.299	0.031	17.5	33.0	0.8
150106*100YF^	10.000	0.807	1.299	0.031	20.5	33.0	0.8
250 Vdc							
150123*250AA^	0.012	0.197	0.433	0.024	5.0	11.0	0.6
150123*250BB^	0.012	0.236	0.650	0.024	6.0	16.5	0.6
150153*250AA^	0.015	0.197	0.433	0.024	5.0	11.0	0.6
150153*250BB^	0.015	0.236	0.650	0.024	6.0	16.5	0.6
150183*250AA^	0.018	0.197	0.433	0.024	5.0	11.0	0.6
150183*250BB^	0.018	0.236	0.650	0.024	6.0	16.5	0.6
150223*250AA^	0.022	0.197	0.433	0.024	5.0	11.0	0.6
150223*250BB^	0.022	0.236	0.650	0.024	6.0	16.5	0.6
150273*250AA^	0.027	0.197	0.433	0.024	5.0	11.0	0.6
150273*250BB^	0.027	0.236	0.650	0.024	6.0	16.5	0.6

* Indicates capacitance tolerance
J = ±5%, K = ±10%, M = ±20%

^If ordering tape and reel, insert 1, 2, or 3.

See tape & reel specifications to determine which class applies.

Part Number highlighted in yellow, available until stock is depleted.

Replacement part number with "BB" case size.

Catalog Part Number	Cap (µF)	Inches Max D	Inches Max L	Inches Max Ød	Millimeters Max D	Millimeters Max L	Millimeters Max Ød
250 Vdc							
150333*250AA^	0.0330	0.197	0.433	0.024	5.0	11.0	0.6
150333*250BB^	0.0330	0.236	0.650	0.024	6.0	16.5	0.6
150393*250AA^	0.0390	0.197	0.433	0.024	5.0	11.0	0.6
150393*250BB^	0.0390	0.236	0.650	0.024	6.0	16.5	0.6
150473*250AA^	0.0470	0.197	0.433	0.024	5.0	11.0	0.6
150473*250BB^	0.0470	0.236	0.650	0.024	6.0	16.5	0.6
150563*250AA^	0.0560	0.197	0.433	0.024	5.0	11.0	0.6
150563*250BB^	0.0560	0.236	0.650	0.024	6.0	16.5	0.6
150683*250BB^	0.0680	0.236	0.650	0.024	6.0	16.5	0.6
150823*250BB^	0.0820	0.236	0.650	0.024	6.0	16.5	0.6
150104*250CB^	0.1000	0.256	0.650	0.024	6.5	16.5	0.6
150124*250DB^	0.1200	0.276	0.650	0.024	7.0	16.5	0.6
150154*250EB^	0.1500	0.315	0.650	0.031	8.0	16.5	0.8
150184*250EB^	0.1800	0.315	0.650	0.031	8.0	16.5	0.8
150224*250FB^	0.2200	0.335	0.650	0.031	8.5	16.5	0.8
150274*250EC^	0.2700	0.315	0.807	0.031	8.0	20.5	0.8
150334*250FC^	0.3300	0.335	0.807	0.031	8.5	20.5	0.8
150394*250GC^	0.3900	0.354	0.807	0.031	9.0	20.5	0.8
150474*250HC^	0.4700	0.374	0.807	0.031	9.5	20.5	0.8
150564*250IC^	0.5600	0.394	0.807	0.031	10.0	20.5	0.8
150684*250GE^	0.6800	0.354	1.102	0.031	9.0	28.0	0.8
150824*250HE^	0.8200	0.374	1.102	0.031	9.5	28.0	0.8
150105*250JE^	1.0000	0.413	1.102	0.031	10.5	28.0	0.8
150155*250ME^	1.5000	0.492	1.102	0.031	12.5	28.0	0.8
150225*250PF^	2.2000	0.531	1.299	0.031	13.5	33.0	0.8
150335*250TF^	3.3000	0.610	1.299	0.031	15.5	33.0	0.8
150475*250XF^	4.7000	0.728	1.299	0.031	18.5	33.0	0.8
150685*250ZF^	6.8000	0.845	1.299	0.031	21.5	33.0	0.8
400 Vdc							
150822*400AA^	0.0082	0.197	0.433	0.024	5.0	11.0	0.6
150822*400BB^	0.0082	0.236	0.650	0.024	6.0	16.5	0.6
150103*400AA^	0.0100	0.197	0.433	0.024	5.0	11.0	0.6
150103*400BB^	0.0100	0.236	0.650	0.024	6.0	16.5	0.6
150123*400AA^	0.0120	0.197	0.433	0.024	5.0	11.0	0.6
150123*400BB^	0.0120	0.236	0.650	0.024	6.0	16.5	0.6
150153*400BB^	0.0150	0.236	0.650	0.024	6.0	16.5	0.6
150183*400BB^	0.0180	0.236	0.650	0.024	6.0	16.5	0.6
150223*400BB^	0.0220	0.236	0.650	0.024	6.0	16.5	0.6
150273*400BB^	0.0270	0.236	0.650	0.024	6.0	16.5	0.6
150333*400BB^	0.0330	0.236	0.650	0.024	6.0	16.5	0.6
150393*400CB^	0.0390	0.256	0.650	0.024	6.5	16.5	0.6
150473*400DB^	0.0470	0.276	0.650	0.024	7.0	16.5	0.6
150563*400EB^	0.0560	0.315	0.650	0.024	8.0	16.5	0.6
150683*400DC^	0.0680	0.276	0.807	0.024	7.0	20.5	0.6
150823*400EC^	0.0820	0.315	0.807	0.031	8.0	20.5	0.8
150104*400EC^	0.1000	0.315	0.807	0.031	8.0	20.5	0.8
150124*400EC^	0.1200	0.315	0.807	0.031	8.0	20.5	0.8
150154*400GC^	0.1500	0.354	0.807	0.031	9.0	20.5	0.8
150184*400EE^	0.1800	0.315	1.102	0.031	8.0	28.0	0.8
150224*400FE^	0.2200	0.335	1.102	0.031	8.5	28.0	0.8
150274*400GE^	0.2700	0.354	1.102	0.031	9.0	28.0	0.8
150334*400IE^	0.3300	0.394	1.102	0.031	10.0	28.0	0.8
150394*400JE^	0.3900	0.413	1.102	0.031	10.5	28.0	0.8
150474*400LF^	0.4700	0.453	1.299	0.031	11.5	33.0	0.8
150564*400LF^	0.5600	0.453	1.299	0.031	11.5	33.0	0.8
150684*400MF^	0.6800	0.492	1.299	0.031	12.5	33.0	0.8
150824*400PF^	0.8200	0.531	1.299	0.031	13.5	33.0	0.8
150105*400QF^	1.0000	0.571	1.299	0.031	14.5	33.0	0.8
150155*400WF^	1.5000	0.689	1.299	0.031	17.5	33.0	0.8
150225*400YF^	2.2000	0.807	1.299	0.031	20.5	33.0	0.8
630 Vdc							
150102*630AA^	0.0010	0.197	0.433	0.024	5.0	11.0	0.6
150102*630BB^	0.0010	0.236	0.650	0.024	6.0	16.5	0.6
150122*630AA^	0.0012	0.197	0.433	0.024	5.0	11.0	0.6
150122*630BB^	0.0012	0.236	0.650	0.024	6.0	16.5	0.6
150152*630AA^	0.0015	0.197	0.433	0.024	5.5	11.0	0.6
150152*630BB^	0.0015	0.236	0.650	0.024	6.0	16.5	0.6
150182*630AA^	0.0018	0.197	0.433	0.024	5.5	11.0	0.6
150182*630BB^	0.0018	0.236	0.650	0.024	6.0	16.5	0.6
150222*630AA^	0.0022	0.197	0.433	0.024	5.5	11.0	0.6
150222*630BB^	0.0022	0.236	0.650	0.024	6.0	16.5	0.6
150272*630AA^	0.0027	0.197	0.433	0.024	5.5	11.0	0.6
150272*630BB^	0.0027	0.236	0.650	0.024	6.0	16.5	0.6
150332*630AA^	0.0033	0.197	0.433	0.024	5.5	11.0	0.6
150332*630BB^	0.0033	0.236	0.650	0.024	6.0	16.5	0.6
150392*630AA^	0.0039	0.197	0.433	0.024	5.5	11.0	0.6
150392*630BB^	0.0039	0.236	0.650	0.024	6.0	16.5	0.6
150472*630AA^	0.0047	0.197	0.433	0.024	5.5	11.0	0.6
150472*630BB^	0.0047	0.236	0.650	0.024	6.0	16.5	0.6
150562*630AA^	0.0056	0.197	0.433	0.024	5.5	11.0	0.6
150562*630BB^	0.0056	0.236	0.650	0.024	6.0	16.5	0.6

* Indicates capacitance tolerance

J = ±5%, K = ±10%, M = ±20%

^If ordering tape and reel, insert 1, 2, or 3.

See tape & reel specifications to determine which class applies.

Part Number highlighted in yellow, available until stock is depleted.

Replacement part number with "BB" case size.

Type 150 Axial Leaded Metallized Polyester

Catalog Part Number	Cap (µF)	Inches Max D	Inches Max L	Inches Max Ød	Millimeters Max D	Millimeters Max L	Millimeters Max Ød
630 Vdc							
150682*630AA^	0.0068	0.197	0.433	0.024	5.5	11.0	0.6
150682*630BB^	0.0068	0.236	0.650	0.024	6.0	16.5	0.6
150822*630BB^	0.0082	0.236	0.650	0.024	6.0	16.5	0.6
150103*630BB^	0.0100	0.236	0.650	0.024	6.0	16.5	0.6
150123*630BB^	0.0120	0.236	0.650	0.024	6.0	16.5	0.6
150153*630BB^	0.0150	0.236	0.650	0.024	6.0	16.5	0.6
150183*630CB^	0.0180	0.256	0.650	0.024	6.5	16.5	0.6
150223*630DB^	0.0220	0.276	0.650	0.024	7.0	16.5	0.6
150273*630CC^	0.0270	0.256	0.807	0.024	6.5	20.5	0.6
150333*630EC^	0.0330	0.315	0.807	0.031	8.0	20.5	0.8
150393*630EC^	0.0390	0.315	0.807	0.031	8.0	20.5	0.8
150473*630EC^	0.0470	0.315	0.807	0.031	8.0	20.5	0.8
150563*630FC^	0.0560	0.335	0.807	0.031	8.5	20.5	0.8
150683*630GC^	0.0680	0.354	0.807	0.031	9.0	20.5	0.8
150823*630HC^	0.0820	0.374	0.807	0.031	9.5	20.5	0.8
150104*630FE^	0.1000	0.335	1.102	0.031	8.5	28.0	0.8
150124*630GE^	0.1200	0.354	1.102	0.031	9.0	28.0	0.8
150154*630IE^	0.1500	0.394	1.102	0.031	10.0	28.0	0.8
150184*630JE^	0.1800	0.413	1.102	0.031	10.5	28.0	0.8
150224*630LE^	0.2200	0.453	1.102	0.031	11.5	28.0	0.8
150274*630ME^	0.2700	0.492	1.102	0.031	12.5	28.0	0.8
150334*630NF^	0.3300	0.512	1.299	0.031	13.0	33.0	0.8
150394*630QF^	0.3900	0.571	1.299	0.031	14.5	33.0	0.8
150474*630RF^	0.4700	0.591	1.299	0.031	15.0	33.0	0.8
150564*630TF^	0.5600	0.610	1.299	0.031	15.5	33.0	0.8
150684*630WF^	0.6800	0.689	1.299	0.031	17.5	33.0	0.8
150824*630XF^	0.8200	0.728	1.299	0.031	18.5	33.0	0.8
150105*630YF^	1.0000	0.807	1.299	0.031	20.5	33.0	0.8

Catalog Part Number	Cap (µF)	Inches Max D	Inches Max L	Inches Max Ød	Millimeters Max D	Millimeters Max L	Millimeters Max Ød
1000 Vdc							
150102*1000CB^	0.0010	0.256	0.650	0.031	6.5	16.5	0.6
150152*1000CB^	0.0015	0.256	0.650	0.031	6.5	16.5	0.6
150222*1000CB^	0.0022	0.256	0.650	0.031	6.5	16.5	0.6
150332*1000CB^	0.0033	0.256	0.650	0.031	6.5	16.5	0.6
150472*1000DB^	0.0047	0.276	0.650	0.031	7.0	16.5	0.6
150682*1000EB^	0.0068	0.315	0.650	0.031	8.0	16.5	0.8
150103*1000DC^	0.0100	0.276	0.807	0.031	7.0	20.5	0.6
150153*1000FC^	0.0150	0.335	0.807	0.031	8.5	20.5	0.8
150223*1000HC^	0.0220	0.374	0.807	0.031	9.5	20.5	0.8
150333*1000FE^	0.0330	0.335	1.102	0.031	8.5	28	0.8
150473*1000HE^	0.0470	0.374	1.102	0.031	9.5	28	0.8
150683*1000KE^	0.0680	0.433	1.102	0.031	11.0	28	0.8
150104*1000NE^	0.1000	0.512	1.102	0.031	13.0	28	0.8
150154*1000OF^	0.1500	0.551	1.299	0.031	14.0	33	0.8
150224*1000WF^	0.2200	0.689	1.299	0.031	17.5	33	0.8
150334*1000YF^	0.3300	0.807	1.299	0.031	20.5	33	0.8
150474*1000Z1F^	0.4700	0.945	1.299	0.031	24.0	33	0.8

* Indicates capacitance tolerance
J = ±5%, K = ±10%, M = ±20%

^If ordering tape and reel, insert 1, 2, or 3.
See tape & reel specifications to determine which class applies.

Part Number highlighted in yellow, available until stock is depleted.

Replacement part number with "BB" case size.

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