

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 (40 to 250 Vac @ 60 Hz)

Capacitance Tolerance: $\pm 5\%$, $\pm 10\%$, $\pm 20\%$

Operating Temperature Range: -55°C to $+125^\circ\text{C}$ (derate linearly to 50% rated voltage at 125°C)

Dielectric Withstand Voltage: 1.6 x rated voltage for 2 s @ $+25^\circ\text{C} \pm 5^\circ\text{C}$

Dissipation Factor (DF): $\text{tg}\delta \times 10^{-4}$ at $+25^\circ\text{C} \pm 5^\circ\text{C}$

kHz	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1 \mu\text{F}$	$C > 1 \mu\text{F}$
1	80	80	100
10	150	150	—
100	250	—	—

Insulation Resistance: 10,000 $\text{M}\Omega \times \mu\text{F}$, 30,000 $\text{M}\Omega$ Min.

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

Life Test: 1000 hrs @ 85°C 1.25 x V_n

Damp Heat Test: 95% RH @ $+45^\circ\text{C}$ for 21 days

Soldering: $260^\circ\text{C} \pm 5^\circ\text{C}$ for 10 s ± 1 s

Long Term Storage Stability: $\Delta C/C \leq \pm 3\%$ after 2 years

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

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



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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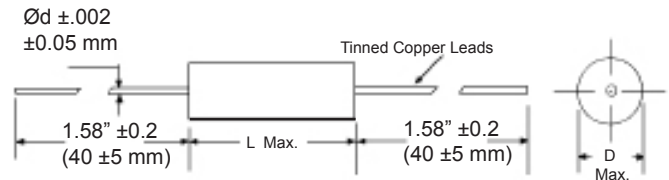
Tape and Reel Specifications

Outline Drawing

L Max (Body Length)		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 thru 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



Ratings

Catalog	Cap	Inches Max			Millimeters Max		
Part Number	(µF)	D	L	Ød	D	L	Ød
63 Vdc/40 Vac							
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/63 Vac							
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

Catalog Part Number	Cap (µF)	Inches Max			Millimeters Max		
		D	L	Ød	D	L	Ød
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/63 Vac							
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/160 Vac							
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

^If ordering tape and reel,

J = ±5%, K = ±10%, M = ±20%

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			Millimeters Max		
		D	L	Ød	D	L	Ød
250 Vdc/160 Vac							
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/200 Vac							
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

Catalog Part Number	Cap (μF)	Inches Max			Millimeters Max		
		D	L	Ød	D	L	Ød
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/220 Vac							
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 [^]If ordering tape and reel,

J = ±5%, K = ±10%, M = ±20% 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			Millimeters Max		
		D	L	Ød	D	L	Ød
630 Vdc/220 Vac							
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			Millimeters Max		
		D	L	Ød	D	L	Ød
1000 Vdc/250 Vac							
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

^If ordering tape and reel,

insert 1, 2, or 3.

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

Replacement part number with "BB" case size.