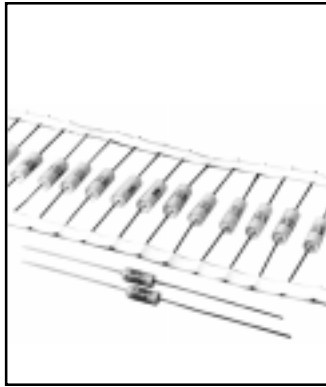


MPEX Series Metallized Polyester / Axial Leads



- Low Leakage
- Non-Polar
- Axial Leads
Lead Material - Tinned Copper Wire (Min. Lead content 5%)
- Available Tape and Reel
- Tape Wrapped with Epoxy End Fill
- Non Inductively Wound
- Flame Retardant Polyester Wrap Meets UL510
- Epoxy End Fill Meets UL94V-0

GENERAL SPECIFICATIONS

Operating Temperature: -55° C to +125° C with voltage derating above 85° C

Dielectric Withstand Voltage: 1.6 x Rated Voltage for 2 sec at +25° C ± 5° C

Voltage Range: 63 VDC to 1000 VDC

CECC Approval: Detail Specification 30401-021

Capacitance Range: 0.001 μF to 10 μF

Excellent choice for general purpose applications such as blocking, bypass, decoupling, smoothing and some timing, energy storage/discharge and arc suppression.

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

Total Self Inductance (L): 1nH maximum per 1mm lead and capacitor length

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
Max Value	1	80	80	100
Typical Value	10	150	150	—
Value	100	250	—	—

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

Vn	L max				
	≤ 16.5	19-20.5	26.5-28	31.5-33	
50-63	4	2	1.5	1	dv/dt (V/μsec)
	504	252	189	126	Wo (V ² /μsec)
100	5	3	2	1	dv/dt (V/μsec)
	1,000	600	400	300	Wo (V ² /μsec)
250	10	7	4	2.5	dv/dt (V/μsec)
	5,000	3,500	2,000	1,250	Wo (V ² /μsec)
400	13.5	10	6.5	4	dv/dt (V/μsec)
	10,800	8,000	5,200	3,200	Wo (V ² /μsec)
630	20	15	10	6	dv/dt (V/μsec)
	25,200	18,900	12,600	7,560	Wo (V ² /μsec)

If the working voltage (V) is less than the nominal voltage (Vn), the capacitor can work at higher dv/dt. In this case, the maximum value allowed is obtained by multiplying the above value (See table dv/dt) with the ratio Vn/V. The pulse characteristic (Wo) is a function of the peak-to-peak voltage and may not exceed the value given in the above table.

Tape and Reel Specifications[^]

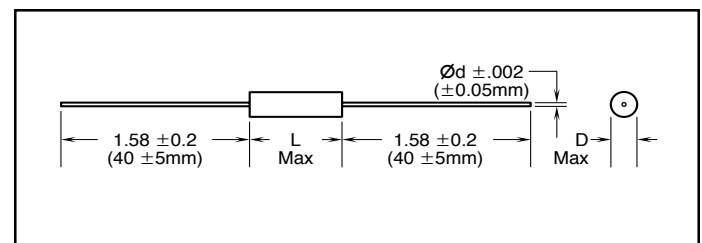
L Max (Body Length)		Lead Spacing		Distance Between Reel Flanges		Class
Inches	mm	Inches	mm	Inches	mm	
≤ .433	≤ 11	2.06	52.4	3.0	75	1
.551 - .808	14 - 20.5	2.5	63.6	3.4	86	2
≥ 1.03	≥ 26	2.87	73	3.7	95	3

[^] Add class number (1, 2, or 3) to Catalog Number to indicate tape and reel

Diameter		Quantity per Reel
Inches	mm	
.197	5	3,000
.236 thru .256	6.0 thru 6.5	1,200
.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

Test Method and Performance

Insulation Resistance	
Test Conditions	25° C ± 5° C
Temperature	1 minute
Voltage Charge Time	50 VDC for Vn < 100 VDC
Voltage Charge	100 VDC for Vn ≥ 100 VDC
Performance	
For Vn > 100 VDC	≥ 30,000 MΩ for C ≤ 0.33 μF
	≥ 10,000 MΩ x μF for C > 0.33 μF
For Vn ≤ 100 VDC	≥ 10,000 MΩ for C ≤ 0.1 μF
	≥ 1,000 MΩ x μF for C > 0.1 μF
Damp Heat Test	
Test Conditions	+40° C
Temperature	95%
Relative Humidity	21 days
Test Duration	
Performance	
Capacitance Change ΔC/C	≤ ± 5%
DF Change Δtgδ	≤ 50 x 10 ⁻⁴ at 1kHz
Insulation Resistance	≥ 50% of limit value
Life Test	
Test Conditions	+85° C
Temperature	1000 hrs
Test Duration	1.25 x Vn
Voltage Applied	
Performance	
Capacitance Change ΔC/C	≤ ± 5%
DF Change Δtgδ	≤ 30 x 10 ⁻⁴ at 10kHz for C ≤ 1 μF
	≤ 20 x 10 ⁻⁴ at 1kHz for C > 1 μF
Insulation Resistance	≥ 50% of limit value
Soldering	
Test Conditions	260° C ± 5° C
Soldering Temperature	10 sec ± 1 sec
Soldering Duration	
Performance	
Capacitance Change ΔC/C	≤ ± 2%
DF Change Δtgδ	≤ 30 x 10 ⁻⁴ at 10kHz for C ≤ 1 μF
	≤ 20 x 10 ⁻⁴ at 1kHz for C > 1 μF
Insulation Resistance	≥ 50% of limit value
Long Term Stability (after two years)	
Storage Performance	Standard Environmental Conditions
Capacitance Change ΔC/C	≤ ± 3%



Cap (μ F)	Size (mm)			Part Description
	D Diameter	L Length	d	

63 VDC; 40 VAC				
0.150	5.0	11.0	0.6	MPEX154*63AA
0.150	6.0	16.5	0.6	MPEX154*63BB
0.180	5.0	11.0	0.6	MPEX184*63AA
0.180	6.0	16.5	0.6	MPEX184*63BB
0.220	6.0	16.5	0.6	MPEX224*63BB
0.270	6.0	16.5	0.6	MPEX274*63BB
0.330	6.0	16.5	0.6	MPEX334*63BB
0.390	6.5	16.5	0.6	MPEX394*63CB
0.470	7.0	16.5	0.6	MPEX474*63DB
0.560	7.0	16.5	0.6	MPEX564*63DB
0.680	7.0	20.5	0.6	MPEX684*63DC
0.820	8.0	20.5	0.8	MPEX824*63EC
1.000	8.0	20.5	0.8	MPEX105*63EC
1.500	9.5	20.5	0.8	MPEX155*63HC
2.200	9.5	28.0	0.8	MPEX225*63HE
3.300	11.0	28.0	0.8	MPEX335*63KE
4.700	12.5	28.0	0.8	MPEX475*63ME
6.800	14.5	33.0	0.8	MPEX685*63QF
10.000	15.5	33.0	0.8	MPEX106*63TF

100 VDC; 63 VAC				
0.068	5.0	11.0	0.6	MPEX683*100AA
0.068	6.0	16.5	0.6	MPEX683*100BB
0.082	5.0	11.0	0.6	MPEX823*100AA
0.082	6.0	16.5	0.6	MPEX823*100BB
0.100	5.0	11.0	0.6	MPEX104*100AA
0.100	6.0	16.5	0.6	MPEX104*100BB
0.120	6.0	16.5	0.6	MPEX124*100BB
0.150	6.0	16.5	0.6	MPEX154*100BB
0.180	6.5	16.5	0.6	MPEX184*100CB
0.220	6.5	16.5	0.6	MPEX224*100CB
0.270	6.5	16.5	0.6	MPEX274*100CB
0.330	8.0	16.5	0.8	MPEX334*100EB
0.390	8.0	16.5	0.8	MPEX394*100EB

DuraCap International Inc.
 P.O. Box 1579 Woodstock, Ontario
 N4S 0A7 Canada

Phone: (519) 539-4891
Fax: (519) 539-6684
<http://www.duracap.com/>

Cap (µF)	Size (mm)			Part Description
	D Diameter	L Length	d	
0.470	7.0	20.5	0.8	MPEX474*100DC
0.560	8.0	20.5	0.8	MPEX564*100EC
0.680	8.5	20.5	0.8	MPEX684*100FC
0.820	9.5	20.5	0.8	MPEX824*100HC
1.000	10.0	20.5	0.8	MPEX105*100IC
1.500	10.0	28.0	0.8	MPEX155*100IE
2.200	11.5	28.0	0.8	MPEX225*100LE
3.300	13.5	28.0	0.8	MPEX335*100PE
4.700	15.0	33.0	0.8	MPEX475*100RF
6.800	17.5	33.0	0.8	MPEX685*100WF
10.000	20.5	33.0	0.8	MPEX106*100YF

250 VDC; 160 VAC				
0.012	5.0	11.0	0.6	MPEX123*250AA
0.012	6.0	16.5	0.6	MPEX123*250BB
0.015	5.0	11.0	0.6	MPEX153*250AA
0.015	6.0	16.5	0.6	MPEX153*250BB
0.018	5.0	11.0	0.6	MPEX183*250AA
0.018	6.0	16.5	0.6	MPEX183*250BB
0.022	5.0	11.0	0.6	MPEX223*250AA
0.022	6.0	16.5	0.6	MPEX223*250BB
0.027	5.0	11.0	0.6	MPEX273*250AA
0.027	6.0	16.5	0.6	MPEX273*250BB
0.033	5.0	11.0	0.6	MPEX333*250AA
0.033	6.0	16.5	0.6	MPEX333*250BB
0.039	5.0	11.0	0.6	MPEX393*250AA
0.039	6.0	16.5	0.6	MPEX393*250BB
0.047	5.0	11.0	0.6	MPEX473*250AA
0.047	6.0	16.5	0.6	MPEX473*250BB
0.056	5.0	11.0	0.6	MPEX563*250AA
0.056	6.0	16.5	0.6	MPEX563*250BB
0.068	6.0	16.5	0.6	MPEX683*250BB
0.082	6.0	16.5	0.6	MPEX823*250BB
0.100	6.5	16.5	0.6	MPEX104*250CB
0.120	7.0	16.5	0.6	MPEX124*250DB
0.150	8.0	16.5	0.8	MPEX154*250EB

DuraCap International Inc.
 P.O. Box 1579 Woodstock, Ontario
 N4S 0A7 Canada

Phone: (519) 539-4891
Fax: (519) 539-6684
<http://www.duracap.com/>

Cap (µF)	Size (mm)			Part Description
	D Diameter	L Length	d	
0.180	8.0	16.5	0.8	MPEX184*250EB
0.220	8.5	16.5	0.8	MPEX224*250FB
0.270	8.0	20.5	0.8	MPEX274*250EC
0.330	8.5	20.5	0.8	MPEX334*250FC
0.390	9.0	20.5	0.8	MPEX394*250GC
0.470	9.5	20.5	0.8	MPEX474*250HC
0.560	10.0	20.5	0.8	MPEX564*250IC
0.680	9.0	28.0	0.8	MPEX684*250GE
0.820	9.5	28.0	0.8	MPEX824*250HE
1.000	10.5	28.0	0.8	MPEX105*250JE
1.500	12.5	28.0	0.8	MPEX155*250ME
2.200	13.5	33.0	0.8	MPEX225*250PF
3.300	15.5	33.0	0.8	MPEX335*250TF
4.700	18.5	33.0	0.8	MPEX475*250XF
6.800	21.5	33.0	0.8	MPEX685*250ZF

400 VDC; 200 VAC				
0.008	5.0	11.0	0.6	MPEX822*400AA
0.008	6.0	16.5	0.6	MPEX822*400BB
0.010	5.0	11.0	0.6	MPEX103*400AA
0.010	6.0	16.5	0.6	MPEX103*400BB
0.012	5.0	11.0	0.6	MPEX123*400AA
0.012	6.0	16.5	0.6	MPEX123*400BB
0.015	6.0	16.5	0.6	MPEX153*400BB
0.018	6.0	16.5	0.6	MPEX183*400BB
0.022	6.0	16.5	0.6	MPEX223*400BB
0.027	6.0	16.5	0.6	MPEX273*400BB
0.033	6.0	16.5	0.6	MPEX333*400BB
0.039	6.5	16.5	0.6	MPEX393*400CB
0.047	7.0	16.5	0.6	MPEX473*400DB
0.056	8.0	16.5	0.6	MPEX563*400EB
0.068	7.0	20.5	0.6	MPEX683*400DC
0.082	8.0	20.5	0.8	MPEX823*400EC
0.100	8.0	20.5	0.8	MPEX104*400EC
0.120	8.0	20.5	0.8	MPEX124*400EC
0.150	9.0	20.5	0.8	MPEX154*400GC

DuraCap International Inc.
 P.O. Box 1579 Woodstock, Ontario
 N4S 0A7 Canada

Phone: (519) 539-4891
Fax: (519) 539-6684
<http://www.duracap.com/>

Cap (μ F)	Size (mm)			Part Description
	D Diameter	L Length	d	
0.180	8.0	28.0	0.8	MPEX184*400EE
0.220	8.5	28.0	0.8	MPEX224*400FE
0.270	9.0	28.0	0.8	MPEX274*400GE
0.330	10.0	28.0	0.8	MPEX334*400IE
0.390	10.5	28.0	0.8	MPEX394*400JE
0.470	11.5	33.0	0.8	MPEX474*400LF
0.560	11.5	33.0	0.8	MPEX564*400LF
0.680	12.5	33.0	0.8	MPEX684*400MF
0.820	13.5	33.0	0.8	MPEX824*400PF
1.000	14.5	33.0	0.8	MPEX105*400QF
1.500	17.5	33.0	0.8	MPEX155*400WF
2.200	20.5	33.0	0.8	MPEX225*400YF

630 VDC; 220 VAC				
0.001	5.0	11.0	0.6	MPEX102*630AA
0.001	6.0	16.5	0.6	MPEX102*630BB
0.001	5.0	11.0	0.6	MPEX122*630AA
0.001	6.0	16.5	0.6	MPEX122*630BB
0.002	5.5	11.0	0.6	MPEX152*630AA
0.002	6.0	16.5	0.6	MPEX152*630BB
0.002	5.5	11.0	0.6	MPEX182*630AA
0.002	6.0	16.5	0.6	MPEX182*630BB
0.002	5.5	11.0	0.6	MPEX222*630AA
0.002	6.0	16.5	0.6	MPEX222*630BB
0.003	5.5	11.0	0.6	MPEX272*630AA
0.003	6.0	16.5	0.6	MPEX272*630BB
0.003	5.5	11.0	0.6	MPEX332*630AA
0.003	6.0	16.5	0.6	MPEX332*630BB
0.004	5.5	11.0	0.6	MPEX392*630AA
0.004	6.0	16.5	0.6	MPEX392*630BB
0.005	5.5	11.0	0.6	MPEX472*630AA
0.005	6.0	16.5	0.6	MPEX472*630BB
0.006	5.5	11.0	0.6	MPEX562*630AA
0.006	6.0	16.5	0.6	MPEX562*630BB
0.007	5.5	11.0	0.6	MPEX682*630AA
0.007	6.0	16.5	0.6	MPEX682*630BB

DuraCap International Inc.
 P.O. Box 1579 Woodstock, Ontario
 N4S 0A7 Canada

Phone: (519) 539-4891
Fax: (519) 539-6684
<http://www.duracap.com/>

Cap (μ F)	Size (mm)			Part Description
	D Diameter	L Length	d	
0.008	6.0	16.5	0.6	MPEX822*630BB
0.010	6.0	16.5	0.6	MPEX103*630BB
0.012	6.0	16.5	0.6	MPEX123*630BB
0.015	6.0	16.5	0.6	MPEX153*630BB
0.018	6.5	16.5	0.6	MPEX183*630CB
0.022	7.0	16.5	0.6	MPEX223*630DB
0.027	6.5	20.5	0.6	MPEX273*630CC
0.033	8.0	20.5	0.8	MPEX333*630EC
0.039	8.0	20.5	0.8	MPEX393*630EC
0.047	8.0	20.5	0.8	MPEX473*630EC
0.056	8.5	20.5	0.8	MPEX563*630FC
0.068	9.0	20.5	0.8	MPEX683*630GC
0.082	9.5	20.5	0.8	MPEX823*630HC
0.100	8.5	28.0	0.8	MPEX104*630FE
0.120	9.0	28.0	0.8	MPEX124*630GE
0.150	10.0	28.0	0.8	MPEX154*630IE
0.180	10.5	28.0	0.8	MPEX184*630JE
0.220	11.5	28.0	0.8	MPEX224*630LE
0.270	12.5	28.0	0.8	MPEX274*630ME
0.330	13.0	33.0	0.8	MPEX334*630NF
0.390	14.5	33.0	0.8	MPEX394*630QF
0.470	15.0	33.0	0.8	MPEX474*630RF
0.560	15.5	33.0	0.8	MPEX564*630TF
0.680	17.5	33.0	0.8	MPEX684*630WF
0.820	18.5	33.0	0.8	MPEX824*630XF
1.000	20.5	33.0	0.8	MPEX105*630YF

1000 VDC; 250 VAC				
0.001	6.5	16.5	0.6	MPEX102*1000CB
0.002	6.5	16.5	0.6	MPEX152*1000CB
0.002	6.5	16.5	0.6	MPEX222*1000CB
0.003	6.5	16.5	0.6	MPEX332*1000CB
0.005	7.0	16.5	0.6	MPEX472*1000DB
0.007	8.0	16.5	0.8	MPEX682*1000EB
0.010	7.0	20.5	0.6	MPEX103*1000DC
0.015	8.5	20.5	0.8	MPEX153*1000FC

DuraCap International Inc.
 P.O. Box 1579 Woodstock, Ontario
 N4S 0A7 Canada

Phone: (519) 539-4891
Fax: (519) 539-6684
<http://www.duracap.com/>

Cap (μ F)	Size (mm)			Part Description
	D Diameter	L Length	d	
0.022	9.5	20.5	0.8	MPEX223*1000HC
0.033	8.5	28.0	0.8	MPEX333*1000FE
0.047	9.5	28.0	0.8	MPEX473*1000HE
0.068	11.0	28.0	0.8	MPEX683*1000KE
0.100	13.0	28.0	0.8	MPEX104*1000NE
0.150	14.0	33.0	0.8	MPEX154*1000OF
0.220	17.5	33.0	0.8	MPEX224*1000WF
0.330	20.5	33.0	0.8	MPEX334*1000YF
0.470	24.0	33.0	0.8	MPEX474*1000Z1F
0.001	6.5	16.5	0.6	MPEX102*1000CB
0.002	6.5	16.5	0.6	MPEX152*1000CB
0.002	6.5	16.5	0.6	MPEX222*1000CB
0.003	6.5	16.5	0.6	MPEX332*1000CB
0.005	7.0	16.5	0.6	MPEX472*1000DB
0.007	8.0	16.5	0.8	MPEX682*1000EB
0.010	7.0	20.5	0.6	MPEX103*1000DC
0.015	8.5	20.5	0.8	MPEX153*1000FC
0.022	9.5	20.5	0.8	MPEX223*1000HC
0.033	8.5	28.0	0.8	MPEX333*1000FE
0.047	9.5	28.0	0.8	MPEX473*1000HE
0.068	11.0	28.0	0.8	MPEX683*1000KE
0.100	13.0	28.0	0.8	MPEX104*1000NE
0.150	14.0	33.0	0.8	MPEX154*1000OF
0.220	17.5	33.0	0.8	MPEX224*1000WF
0.330	20.5	33.0	0.8	MPEX334*1000YF
0.470	24.0	33.0	0.8	MPEX474*1000Z1F