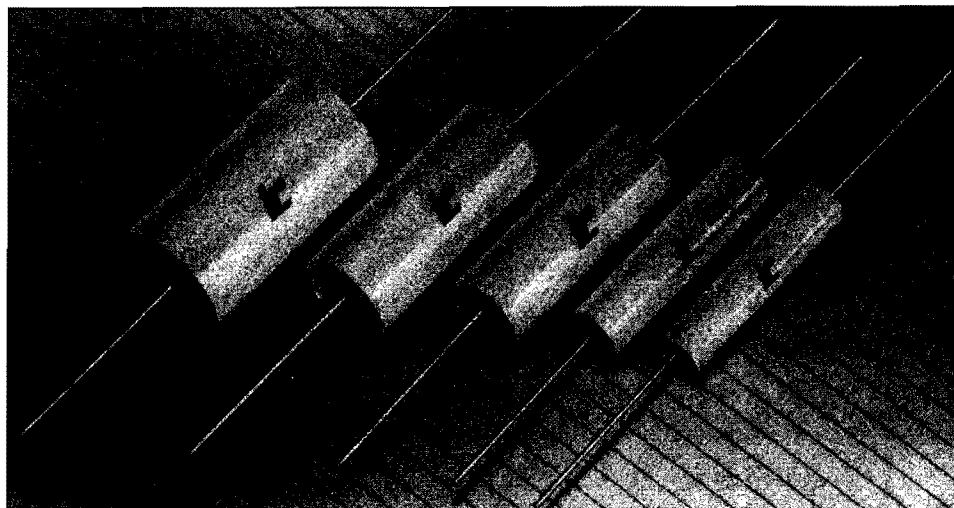


PWM

**+85°C DOUBLE METALLIZED AXIAL
LEAD POLYPROPYLENE FILM
CAPACITORS**
For Pulse/Snubber Applications



FEATURES

- Extremely Long (30,000 Hours) Operating Life
- dV/dt Range Up to 750 V/ μ Sec.
- Self Healing
- High Voltage
- Low ESR
- High Current Carrying Capabilities (to 6 Amps. rms)

SPECIFICATIONS

Capacitance Range: .047 Mfd. to 1.5 Mfd.
Voltage Range: 850WVDC to 2,000WVDC
Capacitance Tolerance: All Values: $\pm 10\%$ (K) Standard
 $\pm 5\%$ (J) Optional
Dissipation Factor: $< 0.1\%$ @ 1 KHz
Operating Temperature: -55°C to $+85^{\circ}\text{C}$
Insulation Resistance: > 100 Giga Ohms

NEW
HIGH VOLTAGE
HIGH CURRENT
POLYPROPYLENE



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PWM

+85°C Double Metallized Polypropylene Film Capacitors

PHYSICAL DIMENSIONS

PHYSICAL DIMENSIONS: MAXIMUM DIAMETER (D) x MAXIMUM LENGTH (L) (inches / mm)

WV(AC) MFD	850 (450)	1200 (500)	2000 (630)
0.047		→	.551x1.929 / 14x49
0.068		→	.610x1.929 / 15.5x49
0.1	→	.472x1.929 / 12x49	.709x1.929 / 18x49
0.15	.472x1.811 / 12x46	.551x1.929 / 14x49	.827x1.929 / 21x49
0.22	.511x1.811 / 13x46	.629x1.929 / 16x49	.945x1.929 / 24x49
0.33	.629x1.811 / 16x46	.748x1.929 / 19x49	1.142x1.929 / 29x49
0.47	.708x1.811 / 18x46	.905x1.929 / 23x49	1.299x1.929 / 33x49
0.68	.826x1.811 / 21x46	1.062x1.929 / 27x49	
1.0	.948x1.811 / 25x46	1.260x1.929 / 32x49	
1.5	1.220x1.811 / 31x46	1.456x1.929 / 37x49	



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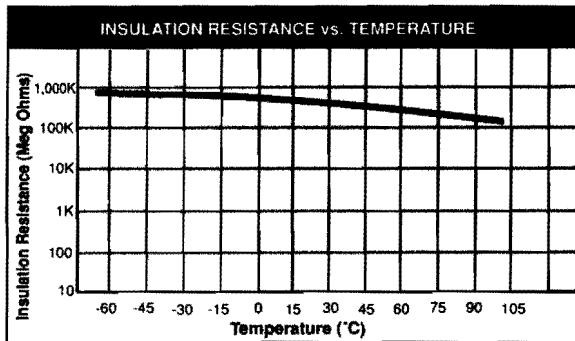
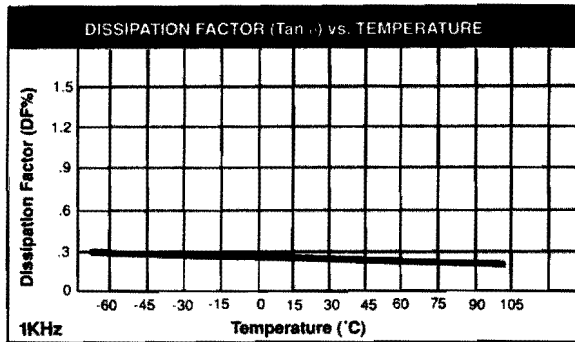
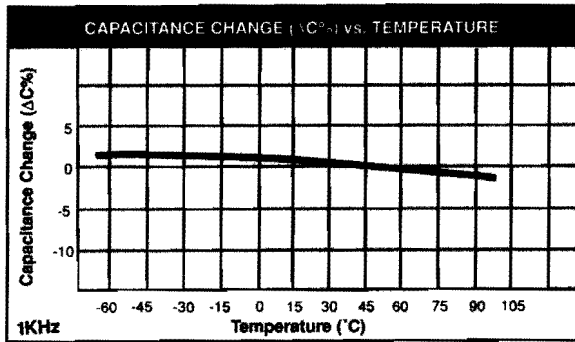
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PWM

+85°C Double Metallized Polypropylene Film Capacitors

ENVIRONMENTAL / ENDURANCE DATA



NOTE: These graphs reflect typical measurements.

RATED DC WORKING VOLTAGE (WVDC)

IC Type PWM capacitors are designed to operate at the specified rated maximum DC Working Voltage over a temperature range of -55°C to +85°C.

Operating Temperature	DC Voltage Rating
+25°C	100%
+85°C	100%

The PWM capacitors can withstand on a limited basis the DC surge voltage ratings below.

WVDC Rated	DC Surge Voltage
850	1000
1200	1600
2000	2400

RATED AC VOLTAGE (ACV)

IC Type PWM capacitors are specified for AC operation at 60 Hz RMS. The AC Working voltage must be derated when used at frequencies other than 60 Hz due to dielectric effects. NOTE: The peak value of the AC voltage superimposed upon the DC voltage should not exceed the rated DC voltage.

For trapezoidal AC input voltages, the WVAC working voltage of the PWM capacitors increases to the following AC working voltages.

WVDC Rated	WVAC (Trapezoidal)
850	600
1200	850
2000	1400

DIELECTRIC STRENGTH

150% Rated DC voltage is applied through a current limiting resistance of 1 ohm/volt for 10 seconds at +25°C and 3 KV at 60 Hz for 60 seconds between the terminals to case.

INSULATION RESISTANCE (IR)

@ +25°C (<70% RH) for 60 sec.

Test Voltage	Insulation Resistance
100 WVDC	≥ 30,000 Meg Ohms

SELF-INDUCTANCE

≤ 10 nH/cm along the capacitor body and leads.

CAPACITANCE DRIFT FACTOR

(after 2 years) ±1.0%

CAPACITANCE TEMPERATURE COEFFICIENT

-150 ppm/°C, ±100 ppm/°C



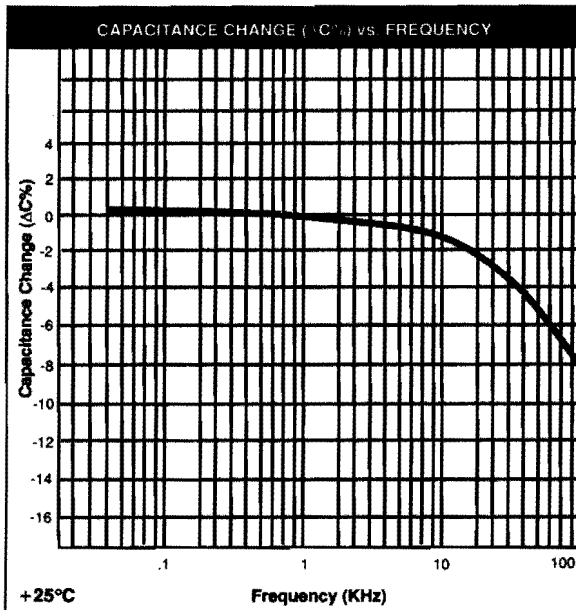
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PWM

+85°C Double Metallized Polypropylene Film Capacitors ENVIRONMENTAL / ENDURANCE DATA



ENDURANCE LIFE TEST

2,000 hours, +85°C dry circulating air,
@125% rated DC voltage

Capacitance Change:

$\Delta C \leq \pm 3\%$ of initial readings @ +25°C, 1 KHz

Dissipation Factor:

DF $\leq 150\%$ of initial limits @ +25°C, 1 KHz

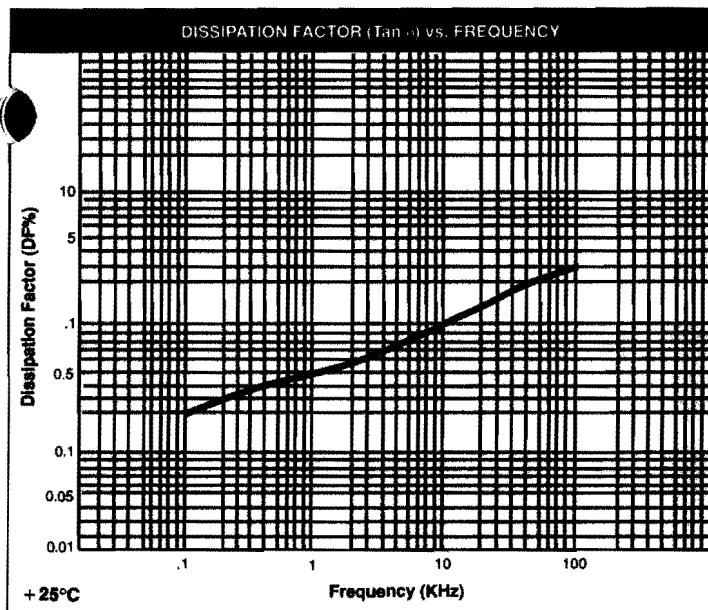
Insulation Resistance:

IR $\geq 50\%$ of minimum initial limits @ +25°C

Typical Life Expectancy:

$\geq 30,000$ hrs. @ VAC

$\geq 60,000$ hrs. @ WVDC

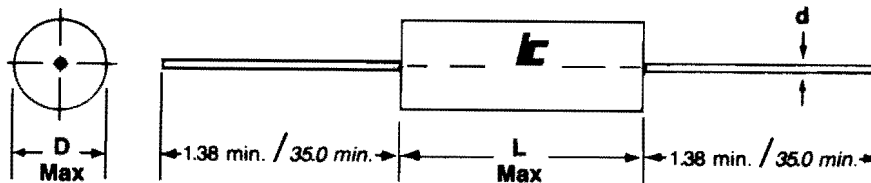


PHYSICAL DIMENSIONS:

DIAMETER (D) x LENGTH (L) (inches/mm)

LEAD WIRE inches / mm		
Case Dia (D)	Lead Wire (d)	Wire Gauge (AWG)
$\leq .236 / \leq 6.0$.024 / 0.6	24
$\geq .256 / \geq 6.5$.028 / 0.7	22
$\geq .354 / \geq 9.0$.032 / 0.8	20

NOTE: These graphs reflect typical measurements.



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PWM

+85°C Double Metallized Polypropylene Film Capacitors STANDARD PART LISTING

STANDARD PART LISTING: Tolerance $\pm 10\%$ (K) Standard

ic PART NUMBER	Capacitance MFD.	WVDC (ACV)	D.F. (%) 1 KHZ +25°C	Ripple Current RMS Amps	dV/dt V/ μ SEC.	PHYSICAL DIMENSIONS in / mm		
						D Case Diameter (Max.)	L Case Length (Max.)	d Lead Wire Dia.
473PWM202K	.047	2,000(630)	.1	4.0	750	.551 / 14.0	1.929 / 49	0.039 / 1.0
683PWM202K	.068	2,000(630)	.1	4.0	750	.610 / 15.5	1.929 / 49	0.039 / 1.0
104PWM122K	.1	1,200(500)	.1	4.0	500	.472 / 12.0	1.929 / 49	0.039 / 1.0
104PWM202K	.1	2,000(630)	.1	4.0	750	.709 / 18.0	1.929 / 49	0.039 / 1.0
154PWM850K	.15	850(450)	.1	4.0	250	.472 / 12.0	1.811 / 46	0.039 / 1.0
154PWM122K	.15	1,200(500)	.1	4.0	500	.551 / 14.0	1.929 / 49	0.039 / 1.0
154PWM202K	.15	2,000(630)	.1	6.0	750	.827 / 21.0	1.929 / 49	0.039 / 1.0
224PWM850K	.22	850(450)	.1	4.0	250	.511 / 13.0	1.811 / 46	0.039 / 1.0
224PWM122K	.22	1,200(500)	.1	5.0	500	.629 / 16.0	1.929 / 49	0.039 / 1.0
224PWM202K	.22	2,000(630)	.1	6.0	750	.945 / 24.0	1.929 / 49	0.039 / 1.0
334PWM850K	.33	850(450)	.1	5.0	250	.629 / 16.0	1.811 / 46	0.039 / 1.0
334PWM122K	.33	1,200(500)	.1	6.0	500	.748 / 19.0	1.929 / 49	0.039 / 1.0
334PWM202K	.33	2,000(630)	.1	6.0	750	1.142 / 29.0	1.929 / 49	0.039 / 1.0
474PWM850K	.47	850(450)	.1	5.0	250	.708 / 18.0	1.811 / 46	0.039 / 1.0
474PWM122K	.47	1,200(500)	.1	6.0	500	.905 / 23.0	1.929 / 49	0.039 / 1.0
474PWM202K	.47	2,000(630)	.1	6.0	750	1.30 / 33.0	1.929 / 49	0.039 / 1.0
684PWM850K	.68	850(450)	.1	6.0	250	.826 / 21.0	1.811 / 46	0.039 / 1.0
684PWM122K	.68	1,200(500)	.1	6.0	500	1.062 / 27.0	1.929 / 49	0.039 / 1.0
105PWM850K	1.0	850(450)	.1	6.0	250	.984 / 25.0	1.811 / 46	0.039 / 1.0
105PWM122K	1.0	1,200(500)	.1	6.0	500	1.26 / 32.0	1.929 / 49	0.039 / 1.0
155PWM850K	1.5	850(450)	.1	6.0	250	1.220 / 31.0	1.811 / 46	0.039 / 1.0
155PWM122K	1.5	1,200(500)	.1	6.0	500	1.456 / 37.0	1.929 / 49	0.039 / 1.0

Note: WVDC: Maximum Rated DC Working Voltage at +85°C. ACV: Maximum Rated AC Working Voltage at +85°C, 60Hz.



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