

MAR

Axial Leaded Polypropylene Film

with Aluminum Foil Electrodes



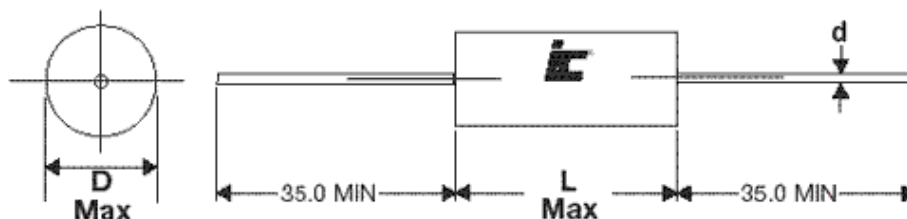
FEATURES

Small size – Good dvdt – Medium current

APPLICATIONS

General purpose AC/DC – AC/DC motor controls – Switching Power Supplies

Operating Temperature Range			-40°C to +85°C									
Capacitance Tolerance			±10% at 1 kHz, 25°C ±5% optional									
Peak, AC voltage (50/60 Hz)	WVDC	370	500	600	700	800						
	SVDC	470	625	750	875	1050						
	VAC	160	275/320	320/400	400/440	400/500						
Dissipation Factor (MAX) Tan δ at 1 kHz and 25°C			C≤2.5uF		2.5<C≤20uF		C>20uF					
			.0007		.0012		.0016					
Insulation Resistance @25°C (<70% RH)for 1 minute at 100VDC applied			15000 MΩxuF									
Self Inductance			<1 nano-Henry per mm of body length and lead length									
Dielectric Strength			Terminal to Terminal				Terminal to Case					
			200% of VDC or VAC applied for 10 Seconds and 25°C				3kVAC (50/60 Hz) applied for 60 Seconds and 25°C					
Damp Heat			56 days with no voltage applied at +40C and 93%(+2%) relative humidity									
			Capacitance Change				<+2% of initially measured value					
			Dissipation Factor				≤.001 at 1 kHz for C>0.1uF					
			Insulation Resistance				>50% of minimum specified value					
Reliability	WVDC	370	500		600		700		800			
	VAC	160	200	275	320	320	400	400	440	400	500	
	Hours	10000	1000	10000	1000	10000	3000	10000	1000	10000	1000	
Failure quota			500/10 ⁹ component hours									
Construction			metallized film									
Coating			Flame Retardant Polyester tape wrap (UL510)with epoxy end fill(UL94V0)									
Lead terminations			Lead free tinned copper leads									



WVDC	370			500			600			700			800		
uF	C≤5	5<C≤10	C>10	C≤3.3	3.3<C≤6.8	C>6.8	C≤2.5	2.5<C≤5	C>4	C≤1.5	1.5<C≤4	C>4	C≤1.2	1.2<C≤4	C>4
d	.8	1.0	1.2	.8	1.0	1.2	.8	1.0	1.2	.8	1.0	1.2	.8	1.0	1.2

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Axial lead

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (mΩ) 100 kHz, +25°C	Dims DxL (mm)
0.22	800	224MARA01KG	120	2	29	11x29
0.33	700	334MARA06KG	105	2.5	25	11.5x29
0.33	800	334MARA01KG	120	2.5	23.5	11.5x29
0.47	600	474MARA02KG	90	2.5	24	11x29
0.47	700	474MARA06KG	105	3	20.5	13x29
0.47	800	474MARA01KG	120	3.5	19	14.5x29
0.47	800	474MARA01KJ	100	3	22.5	12.5x34
0.68	500	684MARA03KG	60	2.5	25	11x29
0.68	600	684MARA02KG	90	3	19.5	13x29
0.68	600	684MARA02KJ	70	3	21.5	12x34
0.68	700	684MARA06KG	105	4	16.8	15x29
0.68	700	684MARA06KJ	85	3.5	18.8	13.5x34
0.68	800	684MARA01KG	120	4	15.8	16.5x29
0.68	800	684MARA01KJ	100	4	18	14x34
1	370	105MARA04KG	50	2.5	23	11x29
1	500	105MARA03KG	60	3	20	12.5x29
1	500	105MARA03KJ	45	2.5	22.5	11.5x34
1	600	105MARA02KG	90	4	15.5	15x29
1	600	105MARA02KJ	70	3.5	17.5	13x34
1	700	105MARA06KJ	85	4.5	15.4	15.5x34
1	800	105MARA01KJ	100	5	14.8	17.5x34
1.2	800	125MARA01KJ	100	5.5	13.4	19x34
1.5	370	155MARA04KG	50	3	18.5	13x29
1.5	500	155MARA03KG	60	4	16	15x29
1.5	500	155MARA03KJ	50	3.5	18.2	13.5x34
1.5	600	155MARA02KG	90	5	12.3	17.5x29
1.5	600	155MARA02KJ	70	4.5	14	15.5x34
1.5	700	155MARA06KJ	85	5.5	12.5	18.5x34
1.5	800	155MARA01KJ	100	6	11.5	20x34
2	370	205MARA04KG	50	4	15.5	15x29
2	370	205MARA04KJ	40	3.5	17.5	12.5x34
2	500	205MARA03KJ	50	4	15.1	15x34
2	500	205MARA03KG	60	4.5	13.7	16.5x29
2	600	205MARA02KJ	70	5.5	11.9	17.5x34
2	700	205MARA06KJ	85	6.5	10.6	21x34
2	700	205MARA06KN	60	6	12.5	18x46
2	800	205MARA01KJ	100	7.5	9.8	23.5x34
2	800	205MARA01KN	65	7	11.5	20x46
2.2	370	225MARA04KG	50	4	14.5	15x29
2.2	370	225MARA04KJ	40	3.5	16.5	13x34
2.2	500	225MARA03KG	60	5	13	17.5x29
2.2	500	225MARA03KJ	50	4.5	14.2	15.5x34
2.2	600	225MARA02KJ	70	6	11.3	18.5x34
2.2	700	225MARA06KJ	85	7	10.1	22x34
2.2	700	225MARA06KN	60	6.5	11.9	19x46
2.2	800	225MARA01KJ	100	7.5	9.3	24.5x34
2.2	800	225MARA01KN	65	7.5	10.7	21x46
2.5	370	255MARA04KG	50	4.5	13.4	16x29
2.5	370	255MARA04KJ	40	4	15.2	14x34
2.5	500	255MARA03KJ	50	5	13.2	17x34
2.5	600	255MARA02KJ	70	6	10.5	19x34
2.5	700	255MARA06KJ	85	7.5	9.4	23x34
2.5	700	255MARA06KN	60	7	11.1	20x46
2.5	800	255MARA01KN	65	8	10	22x46
3	370	305MARA04KG	50	5	12.2	17x29
3	370	305MARA04KJ	40	4.5	13.7	15x34
3	500	305MARA03KJ	50	5.5	11.9	18.5x34
3	600	305MARA02KJ	70	7	9.4	21x34

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (mΩ) 100 kHz, +25°C	Dims DxL (mm)
3	700	305MARA06KN	60	7.5	10.1	21.5x46
3	800	305MARA01KN	65	9	9	24x46
3.3	370	335MARA04KJ	40	4.5	13	15.5x34
3.3	500	335MARA03KJ	50	6	11.3	19x34
3.3	600	335MARA02KJ	70	7.5	8.9	22x34
3.3	600	335MARA02KN	50	7	10.1	19x46
3.3	700	335MARA06KN	60	8	9.6	22.5x46
3.3	800	335MARA01KN	65	9.5	8.5	25x46
4	370	405MARA04KJ	40	5.5	11.7	17x34
4	500	405MARA03KJ	50	7	10.2	21x34
4	500	405MARA03KN	35	6	12.3	17.5x46
4	600	405MARA02KJ	70	8.5	7.9	24x32
4	600	405MARA02KN	50	8	9.1	20.5x46
4	700	405MARA06KN	60	9	8.7	24.5x46
4	800	405MARA01KN	65	10.5	7.5	27x46
4	800	405MARA01KR	50	10	8.8	24x55
4	800	405MARA01KS	40	9.5	9.7	22.5x59
4.7	370	475MARA04KJ	40	6	10.7	18x34
4.7	500	475MARA03KJ	50	7.5	9.4	22.5x34
4.7	500	475MARA03KN	35	7	11.1	19x46
4.7	600	475MARA02KN	50	9	7.7	22x46
4.7	700	475MARA06KN	60	10.5	7.8	26.5x46
4.7	800	475MARA01KN	65	12	6.6	29x46
4.7	800	475MARA01KR	50	11	7.7	26.5x55
4.7	800	475MARA01KS	40	10.5	8.6	24.5x59
5	370	505MARA04KJ	40	6	10.2	18.5x34
5	500	505MARA03KJ	50	7.5	9.1	23x34
5	500	505MARA03KN	35	7	10.5	19.5x46
5	600	505MARA02KN	50	9	7.5	22.5x46
5	700	505MARA06KN	60	10.5	7.3	27x46
5	700	505MARA06KR	45	9.5	8.6	23.5x55
5	700	505MARA06KS	35	9.5	9.5	22.5x59
5	800	505MARA01KN	65	12.5	6.3	29.5x46
5	800	505MARA01KR	50	11.5	7.4	27x55
5	800	505MARA01KS	40	11	8.3	25x59
6.8	370	685MARA04KJ	40	7.5	8.5	21x34
6.8	500	685MARA03KN	35	8.5	8.7	22x46
6.8	600	685MARA02KN	50	11	6.4	26x46
6.8	700	685MARA06KN	60	12.5	6.3	30.5x46
6.8	700	685MARA06KR	45	11.5	7.4	27x55
6.8	700	685MARA06KS	35	11	8.2	25.5x59
6.8	800	685MARA01KR	50	13	6.5	30x55
6.8	800	685MARA01KS	40	12.5	7.3	28.5x59
10	370	106MARA04KJ	40	10	6	24x32
10	370	106MARA04KN	25	9.5	7	21.5x46
10	500	106MARA03KN	35	11	6.7	26x46
10	500	106MARA03KR	25	10.5	7.4	23.5x55
10	600	106MARA02KN	50	13.5	5.4	31x46
10	600	106MARA02KR	35	13.5	6.3	27x55
10	600	106MARA02KS	25	11.5	7.1	26x59
10	700	106MARA06KR	45	14	6.1	32x55
10	700	106MARA06KS	35	13.5	6.8	30x59
10	800	106MARA01KR	50	14	5.4	35x55
10	800	106MARA01KS	40	14	6.1	33.5x59
12	500	126MARA03KN	35	12	6.1	28x46
12	500	126MARA03KR	25	11.5	6.7	25x55
12	600	126MARA02KR	35	14	5.7	29.5x55
12	600	126MARA02KS	25	13	6.5	29x59

MAR

Axial lead

Capacitance (μ F)	WVDC	IC PART NUMBER	dv/dt (V/ μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (m Ω) 100 kHz, +25°C	Dims D $\times$ L (mm)
12	700	126MARA06KR	45	14	5.5	35x55
12	700	126MARA06KS	35	14	6.1	33x59
12.5	800	126MARA01KR	50	14	4.9	40.5x55
12.5	800	126MARA01KS	40	14	5.5	37.5x59
15	370	156MARA04KN	25	10.5	5.7	25.5x46
15	500	156MARA03KN	35	13.5	5.4	31x46
15	500	156MARA03KR	25	13	6	28x55
15	500	156MARA03KS	20	12.5	6.8	26.5x59
15	600	156MARA02KR	35	14	5	33x55
15	600	156MARA02KS	25	14	5.6	31x59
15	700	156MARA06KR	45	14	4.9	36.5x55
15	700	156MARA06KS	35	14	5.4	26.5x59
15	800	156MARA01KS	40	14	5.1	41x59
18	700	186MARA06KR	45	14	4.5	41.5x55
18	700	186MARA06KS	35	14	4.9	39.5x59
20	370	206MARA04KN	25	13.5	5	29x46
20	500	206MARA03KR	25	14	5.1	31.5x55
20	500	206MARA03KS	20	14	5.8	30x59
20	600	206MARA02KR	35	14	4.3	37x55
20	600	206MARA02KS	25	14	4.7	35x59
20	700	206MARA06KS	35	14	4.7	41.5x59
22	370	226MARA04KN	25	14	4.7	30.5x46
22	500	226MARA03KR	25	14	4.8	33x55
22	500	226MARA03KS	20	14	5.4	31x59

Capacitance (μ F)	WVDC	IC PART NUMBER	dv/dt (V/ μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (m Ω) 100 kHz, +25°C	Dims D $\times$ L (mm)
22	600	226MARA02KR	35	14	4.1	39x55
22	600	226MARA02KS	25	14	4.5	37x59
25	370	256MARA04KN	25	14	4.4	32x46
25	500	256MARA03KR	25	14	4.5	25x55
25	500	256MARA03KS	20	14	5	33x59
25	600	256MARA02KR	35	14	3.8	41.5x55
25	600	256MARA02KS	25	14	4.2	39x59
30	370	306MARA04KR	20	14	4.5	31x55
30	370	306MARA04KS	15	14	5.3	29.5x59
30	500	306MARA03KR	25	14	4.1	38x55
30	500	306MARA03KS	20	14	4.5	36x59
33	370	336MARA04KR	20	14	4.3	32.5x55
33	370	336MARA04KS	15	14	5	31x59
33	500	336MARA03KR	25	14	3.9	39.5x55
33	500	336MARA03KS	20	14	4.3	37.5x59
35	500	356MARA03KR	25	14	3.8	41x55
35	500	356MARA03KS	20	14	4.2	38.5x59
40	370	406MARA04KR	20	14	3.9	36x55
40	370	406MARA04KS	15	14	4.5	33.5x59
40	500	406MARA03KS	20	14	3.9	41x59
50	370	506MARA04KR	20	14	3.5	40x55
50	370	506MARA04KS	15	14	3.9	37x59
60	370	606MARA04KS	15	14	3.5	40x59