

ic[®] ILLINOIS CAPACITOR

Your Global Source for
World-Class Capacitors



Table of Contents

This is the table of contents for a custom generated catalog and may not contain all of the products available from Illinois Capacitor. Please refer to www.illinoiscapacitor.com for our full parametric search of thousands of capacitors.

Series	Description
DGH	+85°C Low ESR Supercapacitor
KBM	+105°C, High Frequency Low Impedance/ESR,8000 to 10000 hours
KFM	+105°C, High Frequency Low Impedance/ESR,8000 to 10000 hours
MPX	Class X2 85/85 THB



FEATURES

Very Fast Charge/Discharge – High Power Density – Lower ESR –
RoHS Compliant

APPLICATIONS

Battery Backup/Alternative – Pulse Power – Energy Harvesting – LED
Displays – Mechanical Actuators – Audio Systems

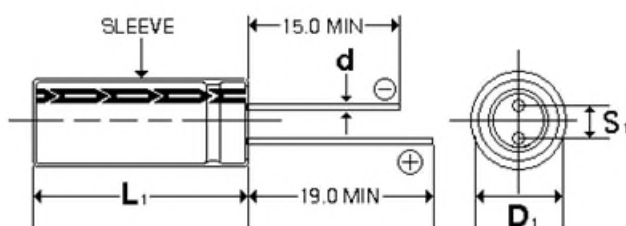
Operating Temperature Range	-40°C to +85°C	
Storage Temperature	-40°C to +70°C	
Capacitance Tolerance @ 20°C	-10% +30% (Q Tolerance) -20% +20% (M Tolerance)	
Voltage (Vdc) (+65°C / +85°C)	2.7V / 2.3V 5.5V / 4.6V 8.1V / 6.9V	
Life Time	1500 hours with rated voltage applied at rated temperature	
	Capacitance change	≤30% of initially measured values
	ESR	≤400% of initially specified values ≤200% of initially specified values (100F to 600F)
	Leakage current	≤100% specified maximum value
Shelf Life	1000 hours with no voltage applied at 65°C (1F to 70F) 1500 hours with no voltage applied at 65°C (100F to 600F)	
	Capacitance change	≤30% of initially measured values
	ESR	≤200% of initially specified values
Life Cycles (25°C) 1 cycle= Charge to WVDC for 20s, constant voltage charging for 10s, discharge to ½ WVDC for 20s, rest for 10s	500,000 cycles	
	Capacitance change	<30% of initially measured values
	ESR change	<200% of initially specified values

[RoHS Compliant](#)

 810a Recognized



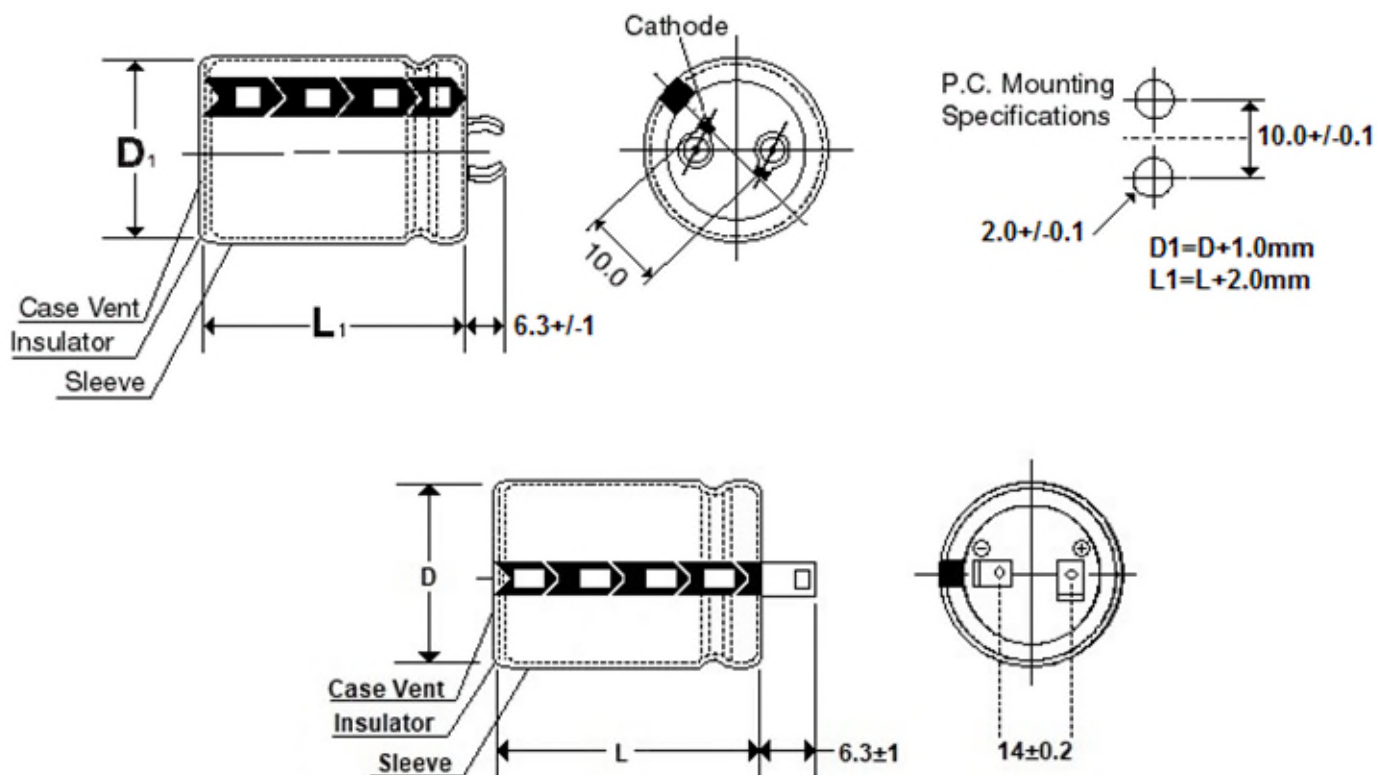
Diameter 6.3mm to 18mm



Lead spacing VS. Case diameter						
D	6.3	8	10	12.5	16	18
S	2.5	3.5	5.0	5.0	7.5	7.5
d	0.6	0.6	0.6	0.6	0.8	0.8
α	1.5	1.5	2.0	2.0	2.0	2.0

$L_1 = L + \alpha$ mm
 $D_1 = D + 0.5$ mm
 $S_1 = S \pm 0.5$ mm
 $d = d \pm 0.05$ mm

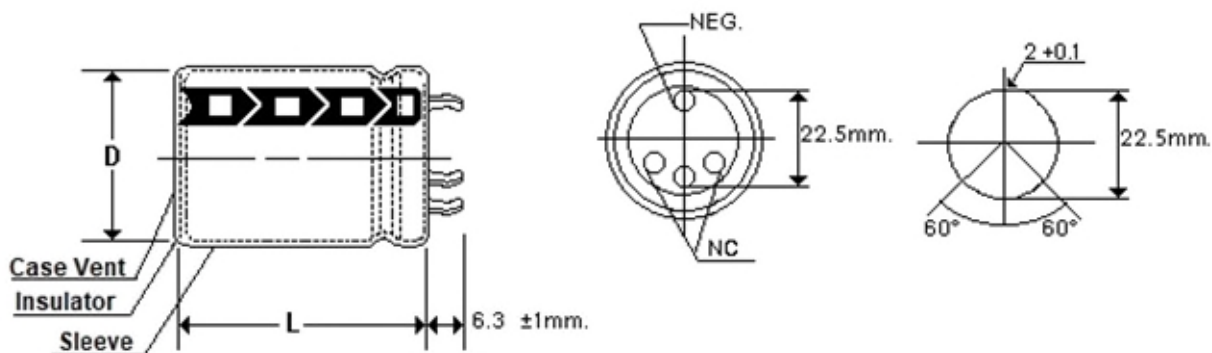
Capacitance 100F to 350F



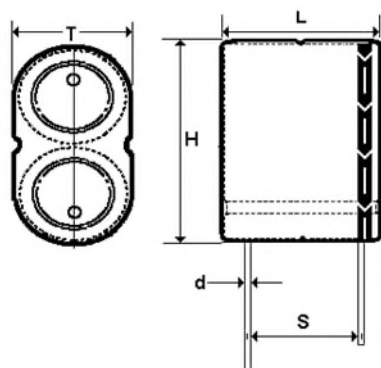
*Lead style L available for 350F



Capacitance 400F to 600F

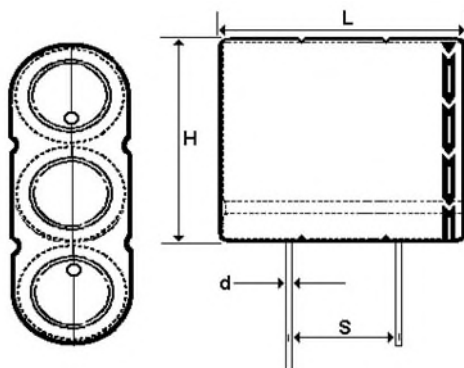


Capacitance 0.5F to 5F 5.5 Volts



Capacitance (F)	Dims (LxHxT) (mm) ±2.0mm	Lead spacing (S) (mm) ±0.5mm	Lead diameter (d) (mm) ±0.05mm
0.5	17x16x8.5	12	0.6
1	17x16x8.5	12	0.6
1.5	17x22x8.5	12	0.6
2.5	21x22x11	15.5	0.6
3.5	21x27x11	15.5	0.6
5	26x27x13	18	0.6

Capacitance 0.33F to 5F 8.1 Volts



Capacitance (F)	Dims (LxHxT) (mm) ±1.0mm	Lead spacing (S) (mm) ±1mm	Lead diameter (d) (mm) ±0.05mm
0.33	25x16x8.5	13.5	0.6
0.5	21x20x6.5	11	0.6
0.67	25x16x8.5	13.5	0.6
1	25x22x8.5	13.5	0.6
2	31x23x11	16	0.6
3.3	31x27x11	16	0.6
5	39x33x13	21	0.6

DGH

High pulse power, extends
battery life

WVDC	Capacitance (F)	IC PART NUMBER	MAX Current (A) (1 Sec.)	Maximum Continuous Current (A) ($\Delta T=15^{\circ}C$)	Short Circuit Current (A)	ESR AC 1 kHz (m Ω)	DC ESR (m Ω) 20°C	Max stored energy (mWh)	LC (mA), (72 hrs)	Energy Density (Wh/kg)	Energy Volumetric Density (Wh/l)	Power Density (kW/kg)	Power Volumetric Density (kW/l)
2.7	1.0	DGH105Q2R7	0.96	0.60	6.8	200	400	1.01	0.008	0.92	1.44	1.988	3.1
2.7	1.2	DGH125M2R7	0.94	0.10	4.5	300	600	1.22	0.008	1.52	2.59	1.82	3.12
2.7	1.5	DGH155M2R7	1.1	0.13	4.8	280	560	1.5	0.008	1.6	2.7	1.64	2.78
2.7	2.0	DGH205Q2R7	1.8	0.70	11	120	240	2.03	0.01	1.68	2.879	2.91	3.97
2.7	3.0	DGH305Q2R7	2.8	1.2	18	80	150	3.04	0.012	2.17	3.02	4.16	5.8
2.7	3.3	DGH335Q2R7	3	1.2	18	80	150	3.34	0.014	2.23	3.33	3.89	5.8
2.7	5.0	DGH505Q2R7	4.1	1.3	21	70	130	5.06	0.016	2.531	3.22	3.37	4.27
2.7	6.0	DGH605Q2R7	4.5	0.51	21	65	130	6.08	0.016	2.89	3.86	3.2	4.28
2.7	7.0	DGH705Q2R7	6.1	1.7	34	55	80	7.09	0.02	2.83	3.61	4.37	5.57
2.7	10.0	DGH106Q2R7	8.4	3.5	45	40	60	10.13	0.03	3.89	5.16	5.6	7.43
2.7	10.0	DGH106Q2R7B	8.4	3.5	45	40	60	10.13	0.03	2.978	4.299	4.288	6.191
2.7	10.0	DGH106Q2R7C	8.4	3.5	45	40	60	10.13	0.03	3.38	5.16	4.86	7.4
2.7	15.0	DGH156Q2R7	11.6	2.4	54	30	60	15.19	0.045	3.375	4.127	3.89	4.75
2.7	20.0	DGH206Q2R7	15	2.6	68	25	50	20.25	0.06	3.11	4.02	3.36	4.3
2.7	25.0	DGH256Q2R7	18	3.1	77	25	35	25.31	0.08	2.98	5.04	2.94	4.96
2.7	30.0	DGH306Q2R7	21.3	4.0	90	22	30	30.38	0.1	3.79	5.03	3.64	4.8
2.7	50.0	DGH506Q2R7	32.1	5.2	123	15	22	50.63	0.14	3.62	4.97	2.84	3.91
2.7	70.0	DGH706Q2R7	39.4	5.8	135	14	20	70.88	0.16	3.938	5.573	2.43	3.439
2.7	100.0	DGH107Q2R7	61.4	8.3	225	8	12	101.25	0.3	4.821	5.922	3.471	4.264
2.7	200.0	DGH207Q2R7	90	10	270	6	10	202.5	0.7	5.192	5.732	2.243	2.476
2.7	350.0	DGH357Q2R7	212	18.9	771	3	3.5	354.4	1	5.45	6.13	3.85	4.33
2.7	350.0	DGH357Q2R7L	212	18.9	771	3	3.5	354.4	1	5.45	6.13	3.85	4.33
2.7	400.0	DGH407Q2R7	225	33.17	771	3	3.5	405	1	5.96	7.016	4.02	4.736
2.7	470.0	DGH477Q2R7	240	18.9	771	3	3.5	475.9	1.3	6.61	8.244	3.47	4.33
2.7	600.0	DGH607Q2R7	261	18	771	3	3.5	608	1.5	7.41	9.02	3.1	3.71
5.5	0.5	DGH504Q5R5	0.96	0.6	6.8	400	800	2.1	0.008	0.955	0.855	2.06	1.85
5.5	1.0	DGH105Q5R5	1.8	0.70	11	280	520	4.2	0.01	1.68	1.71	2.9	2.96
5.5	1.5	DGH155Q5R5	2.8	1.2	18	160	300	6.3	0.012	2.101	1.89	4.03	3.64
5.5	2.5	DGH255Q5R5	4.1	1.3	21	140	260	10.5	0.016	2.02	1.98	2.69	2.63
5.5	3.5	DGH355Q5R5	6.1	1.7	34	110	160	14.7	0.02	2.45	2.36	2.52	2.42
5.5	5.0	DGH505Q5R5	8.4	3.5	45	80	120	21	0.03	2.53	2.3	3.65	2.21
8.1	0.3	DGH334Q8R1	0.95	0.09	6.64	620	1220	3	0.055	1.27	1.44	1.265	1.44
8.1	0.5	DGH504M8R1	1.1	0.13	4.8	860	1700	4.6	0.2	1.6	2.71	1.59	2.7
8.1	0.7	DGH674Q8R1	1.8	0.18	11	380	740	6.1	0.2	2.03	2.88	2.02	2.88
8.1	1.0	DGH105Q8R1	2.76	0.26	17.2	245	470	9.1	0.25	2.17	2.01	2.17	3.007
8.1	2.0	DGH205Q8R1	4.6	0.51	21.3	200	380	18.2	0.32	2.89	3.87	2.89	3.86
8.1	3.3	DGH335Q8R1	6.86	0.84	28	155	290	30.3	0.6	3	5.17	3.75	5.16
8.1	5.0	DGH505Q8R1	10.13	1.27	40.5	110	200	45.6	0.9	3.38	4.13	3.375	4.127

DGH

High pulse power, extends
battery life

WVDC	Capacitance (F)	IC PART NUMBER	Weight (grams)	Volume (mL)	Dims DxL LxHxT (mm)	Lead Spacing S (mm)	Lead Diameter d (mm)
2.7	1.0	DGH105Q2R7	0.8	0.703	8x14	3.5	0.6
2.7	1.2	DGH125M2R7	0.8	0.47	6.3x15	2.5	0.5
2.7	1.5	DGH155M2R7	0.95	0.56	6.3x18	2.6	0.5
2.7	2.0	DGH205Q2R7	1	0.703	8x14	3.5	0.6
2.7	3.0	DGH305Q2R7	1.4	1.01	8x20	3.5	0.6
2.7	3.3	DGH335Q2R7	1.5	1.01	8x20	3.5	0.6
2.7	5.0	DGH505Q2R7	2.1	1.57	10x20	5	0.6
2.7	6.0	DGH605Q2R7	2.1	1.57	10x20	5	0.6
2.7	7.0	DGH705Q2R7	2.3	1.96	10x25	5	0.6
2.7	10.0	DGH106Q2R7	3.2	2.36	10x30	5	0.6
2.7	10.0	DGH106Q2R7B	3.6	2.36	12.5x25	5	0.6
2.7	10.0	DGH106Q2R7C	2.7	1.96	10x25	5	0.6
2.7	15.0	DGH156Q2R7	4.5	3.68	12.5x30	5	0.6
2.7	20.0	DGH206Q2R7	7	5.03	16x25	7.5	0.8
2.7	25.0	DGH256Q2R7	7	5.03	16x25	7.5	0.8
2.7	30.0	DGH306Q2R7	9.7	6.03	16x30	7.5	0.8
2.7	50.0	DGH506Q2R7	13.8	10.18	18x40	7.5	0.8
2.7	70.0	DGH706Q2R7	15	12.72	18x50	7.5	0.8
2.7	100.0	DGH107Q2R7	20	17.1	22x45	10	1.2
2.7	200.0	DGH207Q2R7	36	35.33	30x50	10	1.2
2.7	350.0	DGH357Q2R7	73	57.73	35x60	10	1.2
2.7	350.0	DGH357Q2R7L	73	57.73	35x60	18.4	1.2
2.7	400.0	DGH407Q2R7	73	57.73	35x60	22.5	1.2
2.7	470.0	DGH477Q2R7	75	57.73	35x60	22.5	1.2
2.7	600.0	DGH607Q2R7	90	67.35	35x70	22.5	1.2
5.5	0.5	DGH504Q5R5	2.2	2.46	17x16x8.5	12	0.6
5.5	1.0	DGH105Q5R5	2.5	2.46	17x16x8.5	12	0.6
5.5	1.5	DGH155Q5R5	3	3.32	17x22x8.5	12	0.6
5.5	2.5	DGH255Q5R5	5.2	5.3	21x22x11	15.5	0.6
5.5	3.5	DGH355Q5R5	6	6.24	21x27x11	15.5	0.6
5.5	5.0	DGH505Q5R5	8.3	9.13	26x27x13	18	0.6
8.1	0.3	DGH334Q8R1	4	2.109	0x25	13.5	0.6
8.1	0.5	DGH504M8R1	4	1.68	0x21	11	0.5
8.1	0.7	DGH674Q8R1	4	2.109	0x25	13.5	0.6
8.1	1.0	DGH105Q8R1	5.5	3.03	0x25	13.5	0.6
8.1	2.0	DGH205Q8R1	7.5	4.71	0x31	16	0.6
8.1	3.3	DGH335Q8R1	10	5.88	0x31	16	0.6
8.1	5.0	DGH505Q8R1	15	11.04	0x39	21	0.6



FEATURES

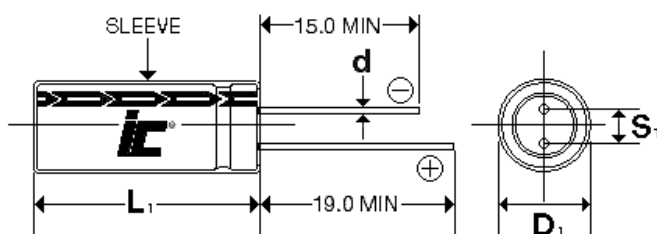
Long Life - High Temperature - RoHS Compliant

APPLICATIONS

Switching Power Supplies - Power Adaptors - Electronic Ballasts

Operating Temperature Range		-40°C to +105°C								
Capacitance Tolerance		+20% at 120 Hz, 20°C								
Surge Voltage	WVDC	6.3	10	16	25	35	50	63	100	
	SVDC	7.9	13	20	32	44	63	79	125	
Dissipation Factor 120 Hz, 20°C	WVDC	6.3	10	16	25	35	50	63	100	
	tan δ	.22	.19	.16	.14	.12	.1	.09	.08	
		Add .02 for every 1000μF above 1000μF								
Leakage current		.01CV or 3μA, Whichever is greater								
		2 Minutes								
Low Temperature Stability Impedance Ratio (120 Hz)		Rated WVDC		6.3	10	16	25 to 100			
		-25°C to +20°C		4	3	2	2			
		-40°C to +20°C		8	6	4	3			
Load Life		After application of rated voltage applied at 105°C								
		WVDC		6.3 to 10				16 to 100		
				D≤6.3mm 4000 Hrs. D=8 to 10mm 6000 Hrs. D≥ 12mm 8000 Hrs.				D≤6.3mm 5000 Hrs. D=8 to 10mm 7000 Hrs. D≥ 12mm 10000 Hrs.		
		Capacitance Change		≤25% of initial measured value						
		Dissipation Factor		≤200% of maximum specified value						
		Leakage Current		-100% of maximum specified value						
Shelf Life		1000 hours at 105°C with no voltage applied								
		Capacitance Change		≤25% of initial measured value						
		Dissipation Factor		≤200% of maximum specified value						
		Leakage Current		-100% of maximum specified value						
Ripple Current Multipliers				Frequency (Hz)						
		Capacitance (μF)		120	1k	10k	100k			
		.47 to 180		.4	.75	.9	1.0			
		220 to 560		.5	.85	.94	1.0			
		680 to 1800		.6	.87	.95	1.0			
		2200 to 3900		.75	.9	.95	1.0			
		4700 to 15000		.85	.95	.98	1.0			

Special Order Options



D	5	6.3	8	10	12.5	16	18
S	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8	0.8

L₁=L+1.5mm (L<20mm) Max.
L₁=L+2mm (L≥20mm) Max.
D₁=D+0.5mm Max.
S₁=S+0.5 mm

KBM

+105°C, High Frequency Low
Impedance/ESR,8000 to
10000 hours

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Impedance Ω +20°C, 100kHz	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
6.3	330	337KBM6R3M	1.106	0.21	340	6.3x11
6.3	1000	108KBM6R3MFBW	0.365	0.08	850	8x16
6.3	1000	108KBM6R3M	0.365	0.08	870	10x12.5
6.3	2200	228KBM6R3MGJD	0.1959	0.042	1650	10x25
6.3	3300	338KBM6R3M	0.1407	0.035	1900	12.5x20
6.3	4700	478KBM6R3MTJD	0.1058	0.03	2200	12.5x25
6.3	6800	688KBM6R3M	0.073	0.025	2400	16x25
6.3	10000	109KBM6R3M	0.066	0.02	2920	16x30
10	100	107KBM010M	3.152	0.58	210	5x11
10	220	227KBM010M	1.433	0.22	340	6.3x11
10	470	477KBM010M	0.671	0.13	640	8x11.5
10	1000	108KBM010MGJG	0.315	0.069	1050	8x20
10	1000	108KBM010M	0.315	0.06	1210	10x16
10	1500	158KBM010M	0.168	0.042	1650	10x25
10	2200	228KBM010M	0.173	0.035	1900	12.5x20
10	3300	338KBM010M	0.126	0.03	2125	12.5x25
10	4700	478KBM010M	0.095	0.025	2400	16x25
10	6800	688KBM010M	0.076	0.02	2920	16x30
10	10000	109KBM010M	0.061	0.018	3520	18x35
16	330	337KBM016M	0.804	0.1	640	8x11.5
16	1000	108KBM016M	0.265	0.046	1400	10x20
16	2200	228KBM016M	0.151	0.027	2230	12.5x25
16	3300	338KBM016M	0.111	0.025	2420	16x25
16	4700	478KBM016M	0.085	0.02	2920	16x30
16	6800	688KBM016M	0.068	0.018	3520	18x35
25	47	476KBM025M	4.941	0.58	210	5x11
25	100	107KBM025M	2.322	0.22	350	6.3x11
25	220	227KBM025M	1.056	0.13	640	8x11.5
25	470	477KBM025M	0.494	0.06	1210	10x16
25	1000	108KBM025M	0.232	0.035	1900	12.5x20
25	2200	228KBM025M	0.136	0.025	2780	16x25
25	3300	338KBM025M	0.101	0.02	2920	16x30
25	4700	478KBM025M	0.078	0.018	3520	18x35
35	33	336KBM035M	6.032	0.58	210	5x11
35	100	107KBM035M	1.99	0.16	460	8x11.5
35	150	157KBM035M	1.061	0.13	640	8x11
35	220	227KBM035MFBW	0.905	0.087	900	8x16
35	220	227KBM035M	0.905	0.08	910	10x12.5
35	270	277KBM035MFJG	0.7368	0.069	1000	8x20
35	330	337KBM035M	0.603	0.06	1210	10x16
35	470	477KBM035M	0.423	0.046	1400	10x20
35	1000	108KBM035M	0.199	0.027	2130	12.5x25
35	2200	228KBM035M	0.121	0.025	2610	16x30

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Impedance Ω +20°C, 100kHz	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
35	3300	338KBM035M	0.09	0.02	3200	18x35
50	1	105KBM050M	165.786	3	45	5x11
50	2.2	225KBM050M	75.3575	2.5	60	5x11
50	3.3	335KBM050M	50.2383	2.2	65	5x11
50	4.7	475KBM050M	35.2737	1.9	100	5x11
50	10	106KBM050M	16.5786	1.5	130	5x11
50	22	226KBM050M	7.5357	0.7	200	5x11
50	33	336KBM050M	5.0238	0.6	280	6.3x11
50	47	476KBM050M	3.5274	0.35	290	6.3x11
50	100	107KBM050MFH	1.6579	0.16	600	8x11.5
50	150	157KBM050M	0.8841	0.12	760	10x12
50	220	227KBM050M	0.7536	0.064	1050	10x16
50	330	337KBM050MGJD	0.5024	0.055	1480	10x25
50	470	477KBM050M	0.3527	0.045	1670	12.5x20
50	1000	108KBM050M	0.1658	0.025	2410	16x25
50	1500	158KBM050M	0.1105	0.19	3150	16x36
50	2200	228KBM050M	0.1055	0.022	3180	18x35
63	10	106KBM063M	14.9208	1.5	105	5x11
63	22	226KBM063M	6.7822	0.96	200	6.3x11
63	33	336KBM063MEBB	4.5214	0.96	200	6.3x11
63	47	476KBM063M	3.1746	0.4	360	8x11.5
63	68	686KBM063MFH	2.1942	0.3	420	8x11.5
63	100	107KBM063MGU	1.4921	0.1	685	10x12.5
63	220	227KBM063M	0.6782	0.08	1100	10x25
63	330	337KBM063M	0.4521	0.075	1100	12.5x20
63	470	477KBM063M	0.1492	0.065	1800	12.5x25
63	470	477KBM063MTAG	0.1492	0.06	360	12.5x30
63	680	687KBM063MKJD	0.219	0.05	2000	16x25
63	820	827KBM063MLJD	0.182	0.048	2200	18x25
63	1000	108KBM063M	0.1492	0.04	2500	16x35
63	1200	128KBM063MLAG	0.152	0.03	2600	18x30
100	1	105KBM100M	132.696	4.5	20	5x11
100	2.2	225KBM100M	60.317	3	30	5x11
100	3.3	335KBM100M	40.211	2.7	40	5x11
100	4.7	475KBM100M	28.233	2.5	65	5x11
100	10	106KBM100M	13.2629	1.2	140	6.3x11
100	15	156KBM100MEBB	8.8419	1	140	6.3x11
100	22	226KBM100M	6.032	0.7	210	8x11.5
100	33	336KBM100M	4.021	0.5	240	10x12.5
100	47	476KBM100MGU	2.823	0.34	400	10x12.5
100	68	686KBM100MGBW	1.95	0.3	460	10x16
100	100	107KBM100M	1.327	0.18	820	12.5x20
100	330	337KBM100M	0.402	0.07	1300	16x25

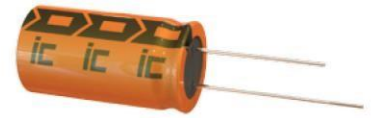
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Radial Lead Aluminum Electrolytic Capacitors

Very Long Life

FEATURES

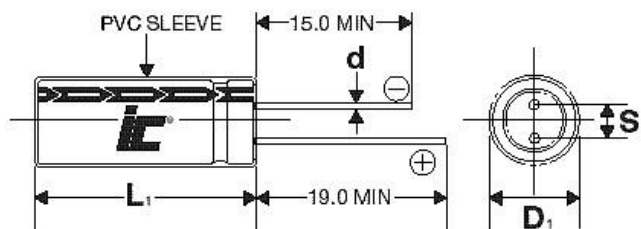
High Temperature - High Voltage – Long Life (10k Hrs)

APPLICATIONS

Switching Power Supplies – Electronic Ballasts

Operating Temperature Range		-40°C to +105°C						
Capacitance Tolerance		+20% at 120 Hz, 20°C						
Surge Voltage	WVDC	160	200	250	350	400	450	
	SVDC	200	250	300	400	450	500	
Dissipation Factor 120 Hz, 20°C	WVDC	160	200	250	350	400	450	
	tan δ	.15	.15	.15	.2	.2	.2	
Leakage Current		2 Minutes						
		.02CV+10uA						
Low Temperature Stability Impedance Ratio (120 Hz)		Rated WVDC		160 to 250		350 to 400		450
		-40°C to +20°C		6		7		9
Load Life		10000 hours with rated voltage applied at 105°C						
		Capacitance Change		<20% of initial measured value				
		Dissipation Factor		<200% of maximum specified value				
		Leakage Current		<100% of maximum specified value				
Shelf Life		1000 hours at 105°C with no voltage applied						
		Capacitance Change		<20% of initial measured value				
		Dissipation Factor		<200% of maximum specified value				
		Leakage Current		<100% of maximum specified value				
Ripple Current Multipliers		Frequency (Hz)						
		50	120	1k	10k			
		0.4	0.5	0.8	0.9			

[Special Order Options](#)



D	6.3	8	10	12.5	16	18
S	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.6	0.6	0.6	0.8	0.8

L₁=L+1.5 mm Max. (L<20mm) mm

L₁=L+2.0 mm Max. (L>20mm)

D₁=D+0.5 mm Max.

S₁=S+0.5 mm

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Sep-21

KFM

+105°C, High Frequency Low Impedance/ESR,8000 to 10000 hours

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
160	15	156KFM160MGU	16.5786	290	10x12.5
160	18	186KFM160MFBW	13.8155	310	8x16
160	22	226KFM160MFJG	11.304	390	8x20
160	27	276KFM160MGBW	9.2104	410	10x16
160	33	336KFM160M	7.5357	530	10x20
160	33	336KFM160MTBD	7.5357	570	12.5x30
160	39	396KFM160MGJD	5.2911	590	10x25
160	39	396KFM160MTBD	5.2911	590	12.5x15
160	47	476KFM160MGJD	5.2911	610	10x25
160	56	566KFM160MFDG	4.4407	740	8x50
160	56	566KFM160MTJG	4.4407	740	12.5x20
160	68	686KFM160MTJG	3.657	800	12.5x20
160	82	826KFM160MTJD	3.0327	830	12.5x25
160	100	107KFM160MGDG	2.4868	1210	10x50
160	100	107KFM160MKJG	2.4868	1120	16x20
160	120	127KFM160MKJD	2.0723	1240	16x25
160	150	157KFM160MTDG	1.658	1280	12.5x50
160	150	157KFM160MKAG	1.658	1280	16x30
160	180	187KFM160MKAG	1.3816	1360	16x30
160	220	227KFM160M	1.13	1410	16x31.5
160	220	227KFM160MRV	1.13	1400	18x25
160	220	227KFM160MLAG	1.13	1410	18x30
160	270	277KFM160MLAD	0.92104	1500	18x35
160	330	337KFM160MLCG	0.7536	1590	18x40
200	3.9	395KFM200MFH	63.764	105	8x11.5
200	10	106KFM200MFBJ	24.868	175	8x12
200	10	106KFM200M	24.868	250	10x16
200	12	126KFM200MFBW	20.7233	190	8x16
200	15	156KFM200MFBW	16.5786	360	8x16
200	22	226KFM200MGBW	11.304	390	10x16
200	22	226KFM200M	11.304	410	10x20
200	27	276KFM200MGJG	9.2104	410	10x20
200	33	336KFM200MGJD	7.5357	530	10x25
200	39	396KFM200MTJG	5.2911	620	12.5x30
200	47	476KFM200MFDG	5.2911	650	8x50
200	47	476KFM200M	5.2911	630	12.5x20
200	56	566KFM200MGDG	4.4407	670	10x50
200	56	566KFM200MTJD	4.4407	670	12.5x25
200	68	686KFM200M	3.657	760	12.5x25
200	68	686KFM200MQU	3.657	760	16x20
200	82	826KFM200MKJD	3.0327	860	16x25
200	100	107KFM200M	2.487	930	16x25
200	120	127KFM200MKAG	2.487	1090	16x35
200	150	157KFM200M	1.658	1360	16x31.5
200	150	157KFM200MKAD	1.658	1125	16x35
200	150	157KFM200MRV	1.658	1360	18x25
200	180	187KFM200MLAG	1.3816	1340	18x30
200	220	227KFM200M	1.13	1700	18x31.5
200	220	227KFM200MLAD	1.13	1420	18x35
250	2.7	275KFM250MEBB	1.13	90	6.3x11
250	5.6	565KFM250MFH	44.4071	150	8x11.5
250	6.8	685KFM250MFH	36.5705	160	8x11.5
250	10	106KFM250MFBW	24.868	250	8x16
250	10	106KFM250MGU	24.868	250	10x12.5
250	15	156KFM250MFJG	16.5786	380	8x20
250	15	156KFM250MGBW	16.5786	390	10x16
250	18	186KFM250MGBW	13.8155	410	10x16
250	22	226KFM250MGJG	11.304	475	10x20

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KFM

**+105°C, High Frequency Low
Impedance/ESR,8000 to
10000 hours**

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
250	33	336KFM250MFDG	7.5357	570	8x50
250	33	336KFM250M	7.5357	570	12.5x20
250	47	476KFM250M	5.2911	650	12.5x25
250	47	476KFM250MTJD	5.2911	650	12.5x25
250	47	476KFM250MQU	5.2911	720	16x20
250	56	566KFM250MTAG	4.4407	750	12.5x30
250	68	686KFM250MGDG	3.657	870	10x50
250	68	686KFM250MTAG	3.657	870	12.5x30
250	68	686KFM250M	3.657	920	16x25
250	68	686KFM250MRU	3.657	920	18x20
250	82	826KFM250MFBG	3.0327	910	8x10
250	100	107KFM250MTDG	2.487	980	12.5x50
250	100	107KFM250M	2.487	960	16x31.5
250	100	107KFM250MRV	2.487	1200	18x25
250	120	127KFM250MLAG	2.0723	1210	18x30
250	150	157KFM250M	1.658	1400	18x31.5
250	180	187KFM250MLAD	1.3816	1540	18x35
250	220	227KFM250MLCG	1.13	1620	18x40
350	2.2	225KFM350MEBB	150.715	70	6.3x11
350	6.8	685KFM350MGU	48.7607	170	10x12.5
350	8.2	825KFM400MGBW	40.4357	252	10x16
350	10	106KFM350MGBW	33.1573	250	10x16
350	15	156KFM350MGJD	22.1049	340	10x25
350	15	156KFM350MTBD	22.1049	340	12.5x15
350	18	186KFM350MGJD	18.4207	430	10x25
350	22	226KFM350M	15.0715	475	12.5x20
350	33	336KFM350MTJD	10.0477	570	12.5x25
350	33	336KFM350M	10.0477	500	16x20
350	47	476KFM350M	7.0547	800	16x25
350	47	476KFM350MRU	7.0547	660	18x20
350	68	686KFM350MTDG	4.8761	880	12.5x50
350	68	686KFM350M	4.8761	850	16x31.5
350	68	686KFM350MRV	4.8761	880	18x25
350	82	826KFM350MLAG	4.0436	940	18x30
350	100	107KFM350MLAD	3.3157	1120	18x35
350	120	127KFM350MLAD	2.7631	1200	18x35
400	1.5	155KFM400MEBB	221.048	75	6.3x11
400	1.8	185KFM400MEBB	184.207	85	6.3x11
400	2.2	225KFM400MFH	150.715	90	8x11.5
400	2.7	275KFM400MFH	122.805	95	8x11.5
400	3.3	335KFM400MFH	100.477	100	8x11.5
400	3.9	395KFM400MFH	85.0187	105	8x11.5
400	4.7	475KFM400MFH	70.5474	110	8x11.5
400	4.7	475KFM400MFBW	70.5474	115	8x16
400	5.6	565KFM400MFBW	59.2094	160	8x16
400	5.6	565KFM400MGU	59.2094	180	10x12.5
400	6.8	685KFM400MFJG	48.7607	180	8x30
400	6.8	685KFM400M	48.7607	220	10x16
400	8.2	825KFM450MGJG	40.4357	265	10x20
400	10	106KFM400M	33.1573	288	10x20
400	18	186KFM400MTJG	18.4207	470	12.5x20
400	22	226KFM400MFDG	15.0715	475	8x50
400	22	226KFM400M	15.0715	475	12.5x25
400	22	226KFM400MQU	15.0715	430	16x20
400	33	336KFM400M	10.0477	610	16x25
400	33	336KFM400MRU	10.0477	640	18x20
400	47	476KFM400M	7.0547	840	16x31.5
400	47	476KFM400MRV	7.0547	795	18x25

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KFM

+105°C, High Frequency Low
Impedance/ESR,8000 to
10000 hours

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
400	56	566KFM400MTDG	5.9209	820	12.5x50
400	56	566KFM400MKAG	5.9209	820	16x30
400	68	686KFM400M	4.8761	910	18x31.5
400	82	826KFM400MKCG	4.0436	980	16x40
400	82	826KFM400MLAD	4.0436	980	18x35
400	100	107KFM400MLCG	3.3157	1100	18x40
450	1	105KFM450MEBB	331.573	50	6.3x11
450	1.5	155KFM450MFH	221.048	80	8x11.5
450	1.8	185KFM450MFH	184.207	85	8x11.5
450	2.2	225KFM450MFBW	150.715	95	8x16
450	2.7	275KFM450MFBW	122.805	100	8x16
450	3.3	335KFM450MFBW	100.477	110	8x16
450	3.9	395KFM450MFBW	85.0187	120	8x16
450	4.7	475KFM450MFJG	70.5474	150	8x20
450	4.8	475KFM450MGBW	70.5474	150	10x16
450	5.6	565KFM450MFJG	59.2094	180	8x20
450	5.6	565KFM450MGBW	59.2094	180	10x16
450	6.8	685KFM450MGBW	48.7607	220	10x16
450	6.8	685KFM450M	48.7607	150	10x20
450	8.2	825KFM350MFJG	40.4357	240	8x20
450	10	106KFM450MGJD	33.1573	305	10x25
450	10	106KFM450M	33.1573	305	12.5x20
450	15	156KFM450MFDG	22.1049	400	8x50
450	15	156KFM450MTJG	22.1049	400	12.5x20
450	18	186KFM450MTJD	18.4207	470	12.5x25
450	22	226KFM450MGCG	15.0715	550	10x40
450	22	226KFM450MKJG	15.0715	550	16x20
450	22	226KFM450M	15.0715	560	16x25
450	22	226KFM450MRU	15.0715	560	18x20
450	33	336KFM450MGDG	10.0477	665	10x50
450	33	336KFM450MKJD	10.0477	665	16x25
450	33	336KFM450M	10.0477	700	16x31.5
450	33	336KFM450MRV	10.0477	700	18x25
450	47	476KFM450MTDG	7.0547	730	12.5x50
450	47	476KFM450MKAD	7.0547	730	16x35
450	47	476KFM450M	7.0547	880	18x31.5
450	56	566KFM450MKAD	5.9209	750	16x35
450	68	686KFM450M	4.8761	1120	18x35.5
450	82	826KFM450MLCG	4.0436	1030	18x40



FEATURES

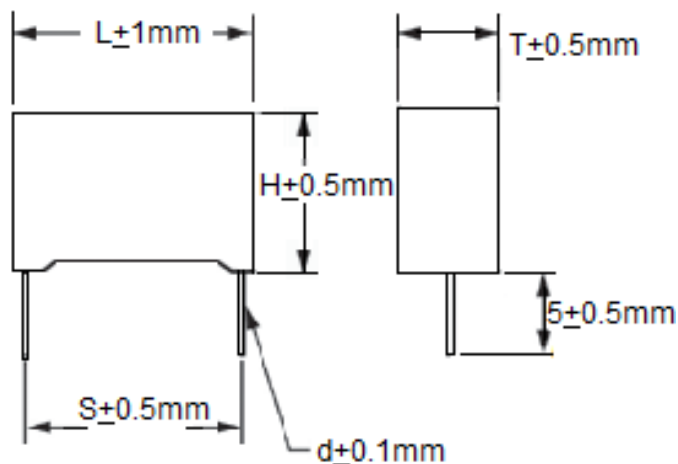
85/85 THB – Safety Agency Approved Metallized Polypropylene

APPLICATIONS

MPX for X2, Across the Line
MPXB for capacitors connected in series across the Mains
EMI Filters – Outdoor Applications

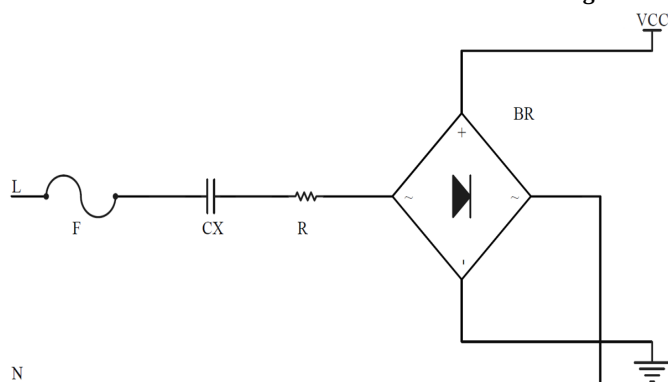
Operating Temperature Range	-40°C to +110°C			
Capacitance Tolerance	±10% or ±20% at 1 kHz, 25°C			
AC voltage (50/60 Hz)	UL/CSA	ENEC	CQC	
	275/305	275/305	305	
Dissipation Factor at 1 kHz and 25°C	Tan δ			
	0.01uF≤Cn≤1.0 uF			≤0.1%
	1.0uF<Cn≤10.0 uF			≤0.3%
	Cn>10.0 uF			≤0.4%
Insulation Resistance @25°C (<70% RH) for 1 minute at 100VDC applied	Capacitance	Terminal to Terminal	Terminal to Case	
	≤0.33uF	15,000 MΩ	>30000 MΩ at 100VDC >5000 MΩ at 500VDC	
	>0.33uF	5,000 MΩxuF	>30000 MΩ at 100VDC >5000 MΩ at 500VDC	
Self-Inductance	≤1 nano-Henry per mm of lead spacing and lead length			
Dielectric Strength	Terminal to Terminal	1312 VDC applied for 60 seconds or 2000 VDC applied for 2 seconds Cut-off current: 2A ac or 10mAdc Current limiting resistance: 1Ω/V		
	Terminal to case	2050VDC (50/60 Hz) applied between the terminals and case for 60 Seconds and 25°C		
Life Expectancy	100,000 hours at Un @Hot-Spot temperature T=85°C			
	Capacitance change		≤10% of initially measured value	
	Dissipation Factor		≤1.0% at 1kHz	
	Insulation Resistance		≥100% of initially specified value (T-T) ≥3000 MΩ (Terminal to case)	
Humidity test	Temperature: 85°C + 2°C; Humidity: 85% + 2% Loading Voltage: 240Vac (50Hz/60Hz) Duration: 1000 hours			
	Capacitance change		≤10% of initially measured value	
	Dissipation Factor		≤1.0% at 1kHz	
	Insulation Resistance		≥50% of initially specified value (T-T) ≥15000 MΩ (Terminal to case)	
Impulse voltage (24 pulses)	C≤ 1uF Vp=2.5kVDC C> 1uF Vp=2.5kV √C			
Capacitance temperature coefficient	-200ppm/°C, ±100ppm/°C			
Construction	Metallized Polypropylene film			
Electrodes	Vacuum deposited Metal layers			
Coating	Flame retardant Solvent resistant plastic case with epoxy end fill (UL94V-0)			
Lead terminations	Lead Free Tinned Leads			

[Special Order Options](#)



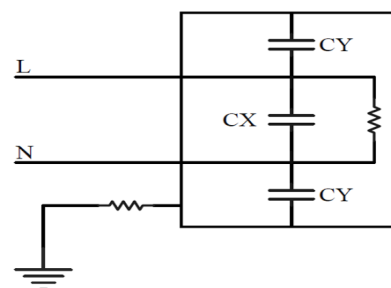
All dimensions in (mm)

*17mm lead length available upon request



MPXB Series

In Series with Mains: 85/85 THB



MPX Series

Standard 85/85 X2 circuit

Safety agency	Standard	Voltage	Class	Certificate number
UL/CSA	UL 60384-14(.0047 to 46uF)	275/305	FOWX2*/FOWX8*	E317135
ENEC (VDE)	DIN EN60384-14 (VDE 0565-1-1):2014-04; EN60384-14:2013-08 DIN EN60384-14/A1 (VDE 0565-1-1/A1):2017-04; EN60384-14:2013/A1:2016 IEC 60384-14:2013 IEC 60384-14:2013/AMD1:2016	275/305	X2	40046436
		275/305		40046436
CQC	GB/T14472-1998	275	X2	
	GB/T14472-1998 (.0047 to 46uF)	305		

*Antenna coupling, Line bypass, across the line

^Electromagnetic interference filter

MPX

Class X2 85/85 THB

Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.01	MPX103K305D	500	13x11x5	10	0.6
0.022	MPX223K305D	500	13x11x5	10	0.6
0.033	MPX333K305D	500	13x11x5	10	0.6
0.047	MPX473K305D	500	13x12x6	10	0.6
0.047	MPX473K305E	400	18x12x6	15	0.6
0.068	MPX683K305D	500	13x12x6	10	0.6
0.068	MPX683K305E	400	18x12x6	15	0.6
0.082	MPX823K305D	500	13x12x6	10	0.6
0.082	MPX823K305E	400	18x12x6	15	0.6
0.1	MPX104K305D	500	13x12x6	10	0.6
0.1	MPX104K305E	400	18x12x6	15	0.6
0.15	MPX154K305D	500	13x14x8	10	0.6
0.15	MPX154K305E	400	18x12x6	15	0.6
0.22	MPX224K305E	400	18x14x8	15	0.8
0.22	MPX224K305G	200	26x16.5x7	22.5	0.8
0.27	MPX274K305E	400	18x14.5x8.5	15	0.8
0.27	MPX274K305G	200	26x16.5x7	22.5	0.8
0.33	MPX334K305E	400	18x16x10	15	0.8
0.33	MPX334K305G	200	26x17x8.5	22.5	0.8
0.47	MPX474K305E	400	18x19x11	15	0.8
0.47	MPX474K305G	200	26x19x10	22.5	0.8
0.56	MPX564K305E	400	18x19x11	15	0.8
0.56	MPX564K305G	200	26x19x10	22.5	0.8
0.68	MPX684K305E	400	18x22x12.5	15	0.8
0.68	MPX684K305G	200	26x20x11	22.5	0.8
0.82	MPX824K305E	400	18x22x12.5	15	0.8

Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.82	MPX824K305G	200	26x20x11	22.5	0.8
1	MPX105K305G	200	26x22x12	22.5	0.8
1	MPX105K305H	150	32x20x11	27.5	0.8
1.2	MPX125K305G	200	26x23x13	22.5	0.8
1.2	MPX125K305H	150	32x22x13	27.5	0.8
1.5	MPX155K305G	200	26x24x14	22.5	0.8
1.5	MPX155K305H	130	32x22x13	27.5	0.8
2.2	MPX225K305H	150	32x28x14	27.5	0.8
3.3	MPX335K305H	150	32x33x18	27.5	0.8
4.7	MPX475K305H	150	32x37x22	27.5	0.8
4.7	MPX475K305N	100	42.5x32x19	37.5	1
6.8	MPX685K305N	100	42.5x44x24	37.5	1
10	MPX106K305N	100	42.5x45x30	37.5	1
12	MPX126K305N	100	42.5x45x30	37.5	1
12	MPX126K305R	100	57.5x45x30	52.5	1.2
15	MPX156K305N	100	42.5x45x30	37.5	1
15	MPX156K305R	100	57.5x45x30	52.5	1.2
18	MPX186K305R	100	57.5x45x30	52.5	1.2
20	MPX206K305R	100	57.5x45x30	52.5	1.2
22	MPX226K305R	100	57.5x45x30	52.5	1.2
25	MPX256K305R	100	57.5x45x30	52.5	1.2
30	MPX306K305R	100	57.5x45x30	52.5	1.2
33	MPX336K305R	100	57.5x50x35	52.5	1.2
39	MPX396K305R	100	57.5x50x35	52.5	1.2
45	MPX456K305R	100	57.5x53x50	52.5	1.2
45	MPX456K305RB	100	57.5x60x45	52.5	1.2

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MPXB

Capacitive Divider 85/85 THB X2

Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.1	MPXB104K305E	400	18x13.5x7.5	15	0.8
0.15	MPXB154K305E	400	18x14.5x8.5	15	0.8
0.22	MPXB224K305E	400	18x16x10	15	0.8
0.33	MPXB334K305E	400	18x19x11	15	0.8
0.47	MPXB474K305G	200	26x20x11	22.5	0.8
0.56	MPXB564K305G	200	26x20x11	22.5	0.8
0.68	MPXB684K305G	200	26x22x12	22.5	0.8
0.82	MPXB824K305G	200	26x22x12	22.5	0.8

Capacitance (μF)	IC PART NUMBER	dv/dt (v/μ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
1	MPXB105K305G	200	26x23x13	22.5	0.8
1	MPXB105K305H	100	32x22x13	27.5	0.8
1.2	MPXB125K305H	100	32x28x14	27.5	0.8
1.5	MPXB155K305H	100	32x28x14	27.5	0.8
1.8	MPXB185K305H	100	32x33x18	27.5	0.8
2	MPXB205K305H	100	32x33x18	27.5	0.8
2.2	MPXB225K305H	100	32x33x18	27.5	0.8

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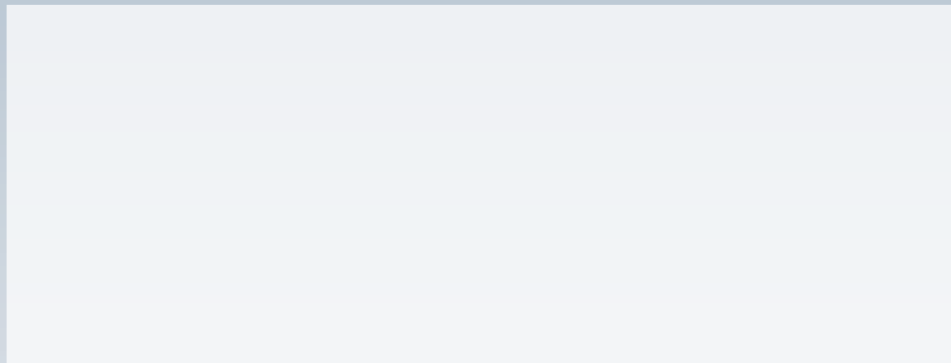
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