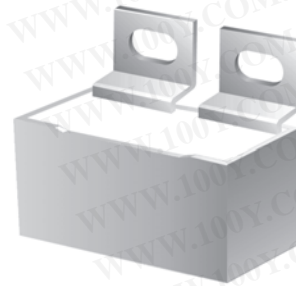




PMB / RMB (NEW - In progress)

Metallized polypropylene film capacitor MKP - Snubber/pulse - High current (RMB: small size)

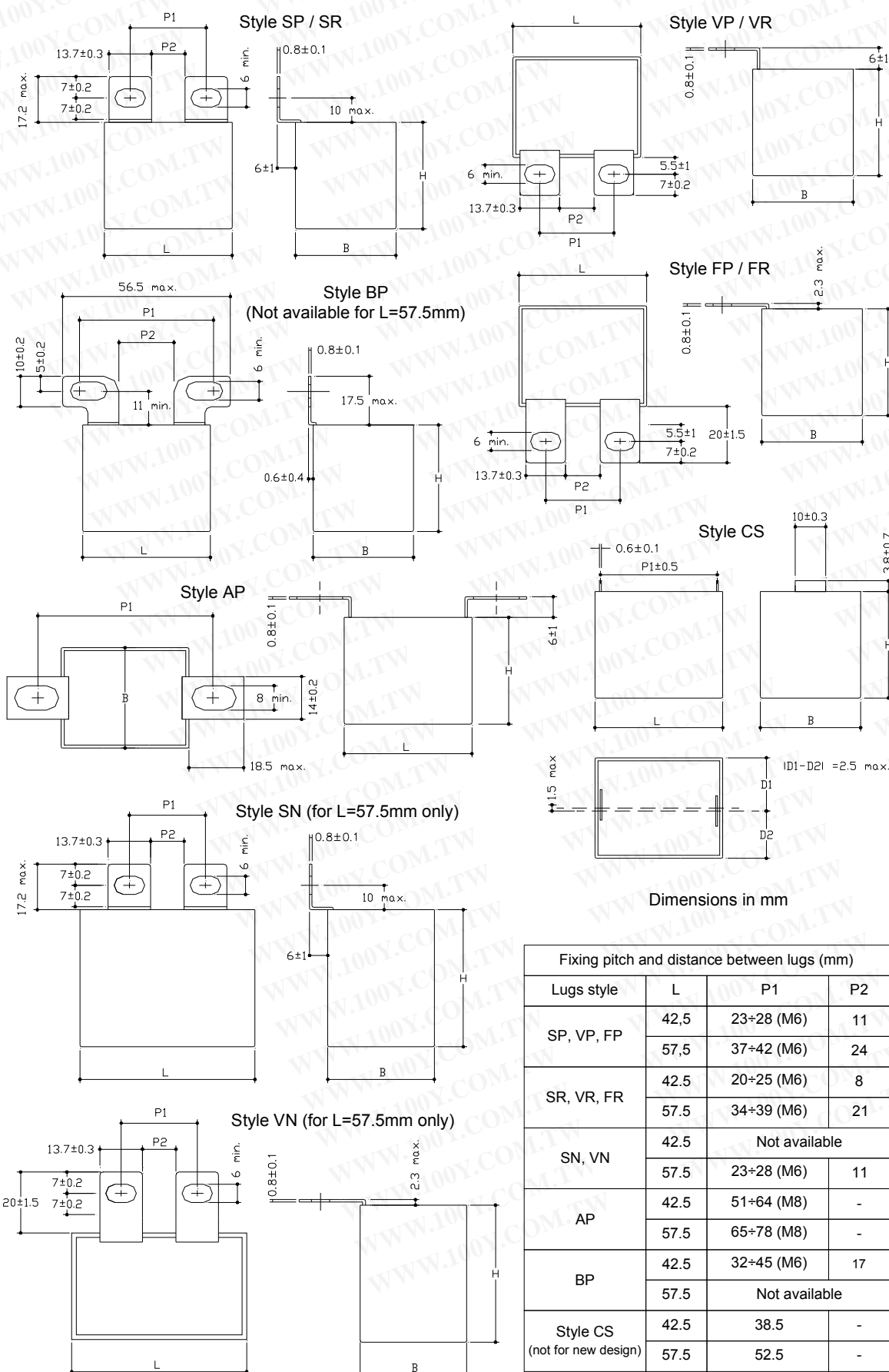
Main applications: Snubber, energy conversion and control in power semiconductor circuits, IGBT modules protection and SMPS protection circuits, high voltage, high current and high pulse applications



Dielectric	Polypropylene								
Electrodes	Vacuum deposited metal layers								
Coating (flame retardant)	Solvent resistant plastic case with resin sealing (UL 94 V-0)								
Construction	Extended double side metallized carrier film with internal series connection and metallized film (refer to general technical information)								
Terminals	Tinned copper lugs (lead-free) for screw fixing or soldering on PCBs (please refer to article table)								
Degree of protection	IP00								
Installation	Whatever position assuring correct heat dissipation. Arrangement of many components with box walls in contact not admitted; suggested minimum distance between side by side elements $\geq 1/8$ of the box thickness.								
Reference standard	IEC 61071, IEC 60068, RoHS compliant								
Climatic category	40/85/56 (IEC 60068/1), GPD (DIN40040)								
Operating temperature range (case)	PMB: -40...+85°C (+100°C observing voltage and current de-rating) / RMB: -40...+85°C								
Max. permissible ambient temperature	PMB: +70°C, operation at rated power, current, voltage and natural cooling (+85°C observing voltage and current de-rating) / RMB: +70°C operation at rated power, current, voltage and natural cooling								
Rated capacitance (Cr)	0,047 μ F to 6,3 μ F (PMB + PMR). Refer to article table								
Capacitance tolerance (at 1kHz)	$\pm 10\%$ (code=K), $\pm 5\%$ (code=J) and $\pm 20\%$ (code=M). Other tolerances upon request								
Capacitance temperature coefficient	Refer to graphs in general technical information								
Long term stability (at 1kHz)	Capacitance variation $\leq \pm 1\%$ after a period of 2 years at standard environmental conditions								
Rated voltage (Ur)	700, 850, 1000, 1200, 1500, 2000, 2500, 3000 Vdc (+85°C), please refer to article table								
Temperature de-rated voltage (PMB only)	PMB: for operating temperature (case) $> +85^\circ\text{C}$, Ur must be decreased 1,5% for every $^\circ\text{C}$ exceeding +85°C, Urms must be decreased 2,5% for every $^\circ\text{C}$ exceeding +85°C / RMB: not applicable								
Non Recurrent Surge Voltage (Upk)	PMB (RMB): 1100, 1300 (1200), 1550 (1300), 1750 (1600), 2200, 2600 (2400), 3300, 4000 (3500) Vdc, +85°C, please refer to article table								
Self inductance	$\leq 1\text{nH/mm}$ of fixing pitch								
Maximum pulse rise time	Refer to article table								
Maximum peak current (Ipeak)	Refer to article table. Max. non repetitive Ipk = 1,5 x Ipeak								
Dissipation factor (DF), max.	($\text{tg}\delta \times 10^{-4}$, measured at 25 $\pm 5^\circ\text{C}$)								
	<table border="1"> <thead> <tr> <th>Freq.</th> <th>Cr $\leq 1,0\mu\text{F}$</th> <th>Cr $> 1,0\mu\text{F}$</th> </tr> </thead> <tbody> <tr> <td>1kHz</td> <td>5</td> <td>6</td> </tr> </tbody> </table>	Freq.	Cr $\leq 1,0\mu\text{F}$	Cr $> 1,0\mu\text{F}$	1kHz	5	6		
Freq.	Cr $\leq 1,0\mu\text{F}$	Cr $> 1,0\mu\text{F}$							
1kHz	5	6							
Insulation resistance (IR)	30000s but need not exceed 30G Ω (typical value), after 1 minute of electrification at 100Vdc (25 \pm 5°C).								
Test voltage between terminals (Ut)	1,6xUr (DC) applied for 10s / 2xUr (DC) applied for 2s, at 25 $\pm 5^\circ\text{C}$								
Test voltage between terminals and case (Utc)	3kV 50 $\pm 60\text{Hz}$ applied for 60s at 25 $\pm 5^\circ\text{C}$								
Damp heat test (steady state)	<table border="0"> <tr> <td>Test conditions:</td> <td>Performance:</td> </tr> <tr> <td>Temperature= +40$\pm 2^\circ\text{C}$</td> <td>Capacitance change $\leq \pm 2\%$</td> </tr> <tr> <td>Relative humidity= 93$\pm 2\%$</td> <td>DF change $\leq 0,0010$ at 1kHz</td> </tr> <tr> <td>Test Duration= 56 days</td> <td>IR $\geq 50\%$ of initial limit value</td> </tr> </table>	Test conditions:	Performance:	Temperature= +40 $\pm 2^\circ\text{C}$	Capacitance change $\leq \pm 2\%$	Relative humidity= 93 $\pm 2\%$	DF change $\leq 0,0010$ at 1kHz	Test Duration= 56 days	IR $\geq 50\%$ of initial limit value
Test conditions:	Performance:								
Temperature= +40 $\pm 2^\circ\text{C}$	Capacitance change $\leq \pm 2\%$								
Relative humidity= 93 $\pm 2\%$	DF change $\leq 0,0010$ at 1kHz								
Test Duration= 56 days	IR $\geq 50\%$ of initial limit value								
Typical capacitance change versus operating time	-3% after 30'000 hours at Urms or after 100'000 hours at Ur								
Life expectancy	$\geq 100'000$ hours (Ur); 30'000 hours (Urms)								
Failure quota	300/10 ⁹ component hours								



PMB / RMB (NEW - In progress)





PMB / RMB (NEW - In progress)

PMB / RMB article table (different values available upon request)

Ur Vdc	Urms Vac ⁽⁴⁾	Upk Vdc	Cap. μF	Dimension in mm			du/dt V/μs	Ipeak A	Irms ⁽²⁾ A	ESR ⁽³⁾ mΩ	ICEL Code ⁽¹⁾
				B	H	L					
700	420	1100	1	17	28	42,5	600	600	15,5	3,3	PMB1704100*##
700	420	1100	1,2	24,5	27,5	42,5	600	720	17,5	3,1	PMB1704120*##
700	420	1100	1,5	22	33,5	42,5	600	900	19	2,8	PMB1704150*##
700	420	1100	2	33,5	35,5	42,5	600	1200	23,5	2,5	PMB1704200*##
700	420	1100	2,2	33,5	35,5	42,5	600	1320	24	2,4	PMB1704220*##
700	420	1100	2,5	33,5	35,5	42,5	600	1500	24,5	2,2	PMB1704250*##
700	420	1100	3	33	45	42,5	600	1800	27,5	2,1	PMB1704300*##
700	420	1100	3,3	33	45	42,5	600	1980	28	2,1	PMB1704330*##
700	420	1100	3,5	33	45	42,5	600	2100	28,5	2	PMB1704350*##
700	420	1100	4	30	45	57,5	360	1456	29	2,3	PMB1704400*##
700	420	1100	4,7	35	50	57,5	360	1692	32	2,1	PMB1704470*##
700	420	1100	5	35	50	57,5	360	1800	32	2,1	PMB1704500*##
700	420	1100	5,6	35	50	57,5	360	2016	33,5	2	PMB1704560*##
700	420	1100	6,3	35	50	57,5	360	2268	34,5	1,9	PMB1704630*##
850	500	1300	0,68	17	28	42,5	750	510	15	3,5	PMB1853680*##
850	500	1300	0,82	24,5	27,5	42,5	750	615	16,5	3,1	PMB1853820*##
850	500	1300	1	24,5	27,5	42,5	750	750	18,5	2,7	PMB1854100*##
850	500	1300	1,5	33,5	35,5	42,5	750	1125	24,5	2,2	PMB1854150*##
850	500	1300	1,75	33,5	35,5	42,5	750	1312,5	25,5	2,1	PMB1854175*##
850	500	1300	2	33	45	42,5	750	1500	28	2	PMB1854200*##
850	500	1300	2,2	33	45	42,5	750	1650	28,5	2	PMB1854220*##
850	500	1300	2,5	33	45	42,5	750	1875	29	1,9	PMB1854250*##
850	500	1300	3	30	45	57,5	450	1350	29,5	2,2	PMB1854300*##
850	500	1300	3,3	30	45	57,5	450	1485	30	2,1	PMB1854330*##
850	500	1300	4	35	50	57,5	450	1800	33,5	1,9	PMB1854400*##
850	500	1200	4,7	35	50	57,5	450	2250	34,5	1,8	PMB1854500*##
1000	575	1550	0,47	17	28	42,5	870	408,9	14	3,9	PMB2103470*##
1000	575	1550	0,68	24,5	27,5	42,5	870	591,6	16,5	3,3	PMB2103680*##
1000	575	1550	0,75	24,5	27,5	42,5	870	652,5	17,5	3,1	PMB2103750*##
1000	575	1550	1,2	33,5	35,5	42,5	870	1044	23,5	2,5	PMB2104120*##
1000	575	1550	1,5	33,5	35,5	42,5	870	1305	25	2,2	PMB2104150*##
1000	575	1550	1,75	33	45	42,5	870	1522,5	27	2,1	PMB2104175*##
1000	575	1550	2	33	45	42,5	870	1740	28	2	PMB2104200*##
1000	575	1300	2,2	33	45	42,5	750	1650	24	3,3	RMB2104220*##
1000	575	1550	2,2	30	45	57,5	500	1100	27,5	2,5	PMB2104220*##
1000	575	1300	2,5	33	45	42,5	750	1875	24,5	3,1	RMB2104250*##
1000	575	1300	3	30	45	57,5	450	1350	24,5	3,7	RMB2104300*##
1000	575	1550	3	35	50	57,5	500	1500	32	2,1	PMB2104300*##
1000	575	1300	3,3	30	45	57,5	450	1485	25,5	3,5	RMB2104330*##
1000	575	1550	3,3	35	50	57,5	500	1650	32,5	2	PMB2104330*##
1000	575	1300	4	35	50	57,5	450	1800	29,5	3,1	RMB2104400*##
1200	630	1750	0,33	17	28	42,5	1000	330	12	5,1	PMB2123330*##B
1200	630	1750	0,33	24,5	27,5	42,5	1000	330	12,5	5,1	PMB2123330*##B
1200	630	1750	0,39	17	28	42,5	1000	390	13	4,6	PMB2123390*##B
1200	630	1750	0,39	24,5	27,5	42,5	1000	390	14	4,6	PMB2123390*##B
1200	630	1750	0,47	24,5	27,5	42,5	1000	470	15	4,1	PMB2123470*##
1200	630	1750	0,56	24,5	27,5	42,5	1000	560	16	3,7	PMB2123560*##
1200	630	1750	0,68	33,5	35,5	42,5	1000	680	20	3,3	PMB2123680*##
1200	630	1750	0,82	33,5	35,5	42,5	1000	820	21	3	PMB2123820*##
1200	630	1750	1	33,5	35,5	42,5	1000	1000	22,5	2,7	PMB2124100*##
1200	630	1600	1,2	33,5	35,5	42,5	870	1044	20	4,1	RMB2124120*##
1200	630	1750	1,2	33	45	42,5	1000	1200	25	2,4	PMB2124120*##
1200	630	1600	1,5	33,5	35,5	42,5	870	1305	21	3,6	RMB2124150*##
1200	630	1750	1,5	33	45	42,5	1000	1500	27,5	2,1	PMB2124150*##
1200	630	1600	2	33	45	42,5	870	1740	24,5	3,3	RMB2124200*##
1200	630	1750	2	30	45	57,5	575	1150	28	2,4	PMB2124200*##
1200	630	1600	2,2	30	45	57,5	500	1100	23,5	4,1	RMB2124220*##
1200	630	1750	2,2	35	50	57,5	575	1265	31	2,3	PMB2124220*##
1200	630	1600	2,5	30	45	57,5	500	1250	24,5	3,8	RMB2124250*##
1200	630	1750	2,5	35	50	57,5	575	1437,5	32,5	2,1	PMB2124250*##
1200	630	1600	3	35	50	57,5	500	1500	28	3,4	RMB2124300*##
1200	630	1600	3,3	35	50	57,5	500	1650	28,5	3,2	RMB2124330*##

(1)Change the * symbol with the needed capacitance tolerance code: J=±5%, K=±10%, M=±20% and the ## characters with the needed style code - (2) Maximum values at 100kHz, +70°C for case operating T= +85°C (PMB only: at T amb. >+70°C and T case>+85°C voltage and current de-rating must be observed), C tol. ≤ ±10% - (3) Typical values at 100kHz.

(4)Not suitable for across the line application.



PMB / RMB (NEW - In progress)

Ur Vdc	Urms Vac ⁽⁴⁾	Upk Vdc	Cap. μF	Dimension in mm			du/dt V/μs	Ipeak A	Irms ⁽²⁾ A	ESR ⁽³⁾ mΩ	ICEL Code ⁽¹⁾
				B	H	L					
1500	650	2200	0,22	17	28	42,5	1220	268,4	11	6,1	PMB2153220*##
1500	650	2200	0,33	24,5	27,5	42,5	1220	402,6	14	4,6	PMB2153330*##
1500	650	2200	0,39	24,5	27,5	42,5	1220	475,8	14,5	4,3	PMB2153390*##
1500	650	2200	0,47	33,5	35,5	42,5	1220	573,4	19	3,7	PMB2153470*##
1500	650	2200	0,68	33,5	35,5	42,5	1220	829,6	21	3,1	PMB2153680*##
1500	650	2200	0,75	33,5	35,5	42,5	1220	915	22	2,8	PMB2153750*##
1500	650	2200	1	33	45	42,5	1220	1220	23	2,5	PMB2154100*##
1500	650	2200	1,2	30	45	57,5	725	870	26	2,8	PMB2154120*##
1500	650	2200	1,5	35	50	57,5	725	1087,5	29,5	2,5	PMB2154150*##
1500	650	2200	1,8	35	50	57,5	725	1305	30,5	2,3	PMB2154180*##
2000	700	2600	0,1	17	28	42,5	1600	160	8	12,5	PMB2203100*##B
2000	700	2600	0,1	24,5	27,5	42,5	1600	160	8,5	12,5	PMB2203100*##
2000	700	2600	0,15	24,5	27,5	42,5	1600	240	11	7,5	PMB2203150*##
2000	700	2600	0,22	24,5	27,5	42,5	1600	352	13,5	5,1	PMB2203220*##
2000	700	2400	0,33	24,5	27,5	42,5	1220	402,6	12,5	7,4	RMB2203330*##
2000	700	2600	0,33	33,5	35,5	42,5	1600	528	18	4,1	PMB2203330*##
2000	700	2600	0,39	33,5	35,5	42,5	1600	624	19,5	3,6	PMB2203390*##
2000	700	2400	0,47	33,5	35,5	42,5	1220	573,4	16,5	6	RMB2203470*##
2000	700	2600	0,47	33	45	42,5	1600	752	22	3,3	PMB2203470*##
2000	700	2600	0,56	33	45	42,5	1600	896	23	3	PMB2203560*##
2000	700	2400	0,68	33,5	35,5	42,5	1220	829,6	18	5	RMB2203680*##
2000	700	2600	0,68	30	45	57,5	930	632,4	23	3,5	PMB2203680*##
2000	700	2400	0,82	33	45	42,5	1220	1000,4	20	4,6	RMB2203820*##
2000	700	2600	0,82	30	45	57,5	930	762,6	24,5	3,1	PMB2203820*##
2000	700	2400	1	33	45	42,5	1220	1220	21,5	4,1	RMB2204100*##
2000	700	2600	1	35	50	57,5	930	930	28	2,8	PMB2204100*##
2000	700	2400	1,2	30	45	57,5	725	870	22,5	4,5	RMB2204120*##
2000	700	2600	1,2	35	50	57,5	930	1116	29,5	2,4	PMB2204120*##
2000	700	2400	1,5	35	50	57,5	725	1087,5	26	4	RMB2204150*##
2500	725	3300	0,1	17	28	42,5	2050	205	8,5	11	PMB2253100*##B
2500	725	3300	0,1	24,5	27,5	42,5	2050	205	9	11	PMB2253100*##
2500	725	3300	0,15	24,5	27,5	42,5	2050	307,5	11,5	7,2	PMB2253150*##
2500	725	3300	0,22	33,5	35,5	42,5	2050	451	16	5,2	PMB2253220*##
2500	725	3300	0,33	33,5	35,5	42,5	2050	676,5	19	3,8	PMB2253330*##
2500	725	3300	0,47	33	45	42,5	2050	963,5	23	3	PMB2253470*##
2500	725	3300	0,56	30	45	57,5	1150	644	23	3,5	PMB2253560*##
2500	725	3300	0,68	35	50	57,5	1150	782	26	3,2	PMB2253680*##
2500	725	3300	0,82	35	50	57,5	1150	943	27,5	2,9	PMB2253820*##
3000	750	4000	0,047	17	28	42,5	2500	117,5	7	16,5	PMB2302470*##B
3000	750	4000	0,047	24,5	27,5	42,5	2500	117,5	7,5	16,5	PMB2302470*##
3000	750	4000	0,068	17	28	42,5	2500	170	8	11,5	PMB2302680*##B
3000	750	4000	0,068	24,5	27,5	42,5	2500	170	9	11,5	PMB2302680*##
3000	750	4000	0,1	33,5	35,5	42,5	2500	250	12,5	8,5	PMB2303100*##
3000	750	4000	0,15	33,5	35,5	42,5	2500	375	15	6,0	PMB2303150*##
3000	750	3500	0,22	33,5	35,5	42,5	2050	451	14,5	8,2	RMB2303220*##
3000	750	4000	0,22	33	45	42,5	2500	550	19	4,3	PMB2303220*##
3000	750	3500	0,33	33,5	35,5	42,5	2050	676,5	16,5	6,1	RMB2303330*##
3000	750	4000	0,33	30	45	57,5	1400	462	21	4,3	PMB2303330*##
3000	750	3500	0,47	33	45	42,5	2050	963,5	19,5	5	RMB2303470*##
3000	750	4000	0,47	35	50	57,5	1400	658	24	3,8	PMB2303470*##
3000	750	3500	0,68	35	50	57,5	1150	782	22	5,2	RMB2303680*##
3000	750	3500	0,82	35	50	57,5	1150	943	24	4,7	RMB2303820*##

(1)Change the * symbol with the needed capacitance tolerance code: J=±5%, K=±10%, M=±20% and the ## characters with the needed style code - (2) Maximum values at 100kHz, +70°C for case operating T= +85°C (PMB only: at T amb. >+70°C and T case>+85°C voltage and current de-rating must be observed), C tol. ≤ ±10% - (3) Typical values at 100kHz.

(4)Not suitable for across the line application.

Warning

This specification must be completed with the data given in the
 “General technical information” chapter