



# SPECIFICATION FOR APPROVAL

File No.: Q/FRK 0.GS. E.C3B-F10

Product Name	DC-Link-Capacitor (Dry-Type, Aluminum case)
Product Type:	C3B
Product Code	
Customer	
Customer Code	
Issue Date	2015-7



**Xiamen Faratronic Co. Ltd.**

**represented by ALFATEC GmbH & Co.KG**

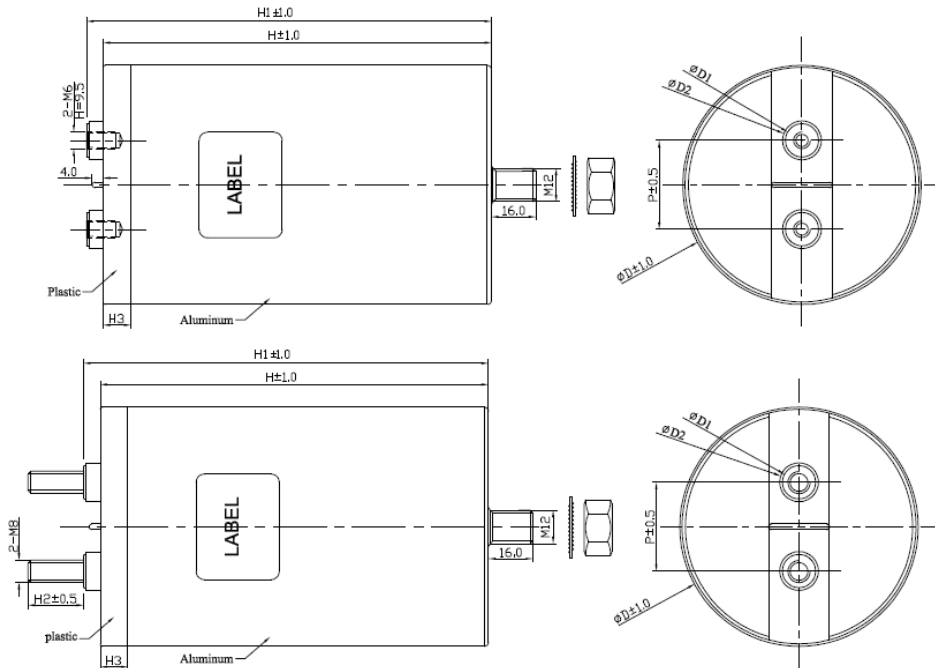
**Meckenloher Str. 11  
91126 Rednitzhembach / Germany  
Tel.: +49 (0) 91 22 / 97 96 -0  
Fax.: +49 (0) 91 22 / 97 96 -50  
E-mail: info@alfatec.de**

\*.The specification are the property of Xiamen Faratronic Co.Ltd and shall not be copied or used as commercial purposes without permission.

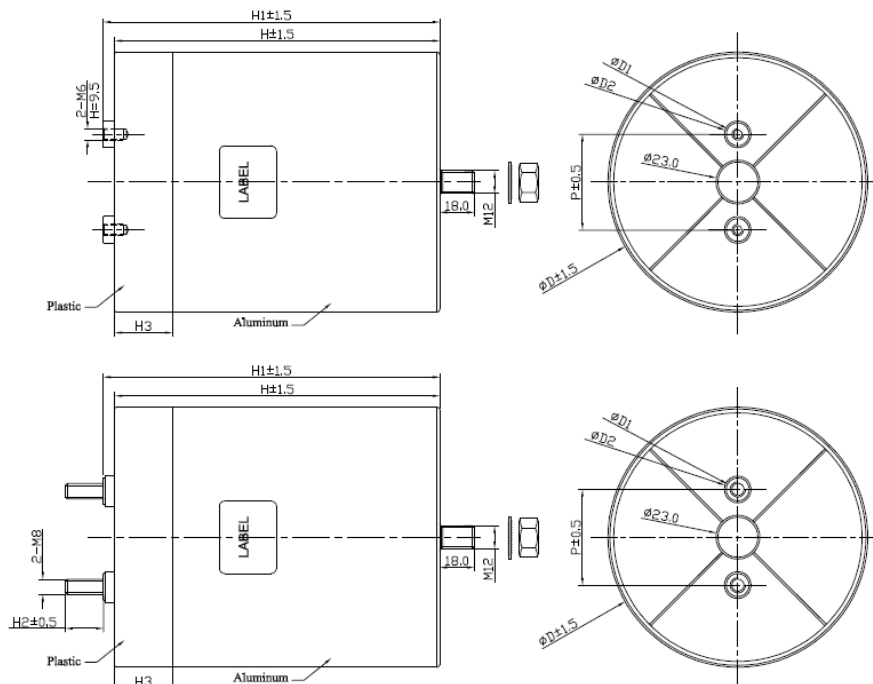
## DC-Link Capacitor (Dry-Type, Aluminum case)

### ■ Outline Drawing

D≤116mm



D=136mm



### Additional remark of dimensions

D=76mm	P=32mm; D1=12mm; D2=14mm; H3=10mm	
D=86mm	P=32mm; D1=12mm; D2=14mm; H3=10mm or 45mm	
	P=45mm;	Female terminals: D1=14mm; D2=16mm; H3=10mm or 45mm Male terminals: D1=16mm; D2=20mm; H3=10mm or 45mm
D=100mm	P=50mm; D1=14mm; D2=16mm;	H ≤ 100mm, H3=10mm
		H > 100mm, H3=45mm
D=116mm	P=50mm; D1=14mm; D2=16mm;	H ≤ 100mm, H3=10mm
		H > 100mm, H3=45mm
D=136mm	P=50mm; D1=14mm; D2=16mm; H3=45mm	
<b>H3 can be changed in pursuance of customer's request. (H3=45mm when rated voltage &gt; 1500Vdc)</b>		



## ■ Features

- Used in DC-Link circuits, Can replace electrolytic capacitor
- Low ESR, high ripple current handling capabilities
- Low  $L_s$
- Self-healing property
- Long lifetime
- Aluminum case, Filled with resin

## ■ Applications

- Used in inverters of wind power and solar power
- Transportation: EV or HEV
- Welders, Elevators, Motor Driver systems

## ■ Safty approvals

	TUV Rheinland	EN 61071: 2007, EN 61881-1: 2011, 600Vdc ~ 4000Vdc, 5 $\mu$ F~5600 $\mu$ F, -40/85 $^{\circ}$ C Certificate No.: R 50266039
	UL	UL 810 (construction only), Max. 5000Vdc, 90 $^{\circ}$ C File No.: E256238 CCN: CZDS2

## ■ Specifications

Reference Standard	GB/T 17702, IEC 61071	
Climatic Category	D $\leq$ 116mm: 40/85/56, D =136mm: 40/80/56	
Operating Temperature Range	D $\leq$ 116mm: -40 $^{\circ}$ C~85 $^{\circ}$ C ( $\Theta_{hs} \leq 85^{\circ}$ C) D =136mm: -40 $^{\circ}$ C~80 $^{\circ}$ C ( $\Theta_{hs} \leq 80^{\circ}$ C)	
Storage temperature range	-40 $^{\circ}$ C~85 $^{\circ}$ C	
Voltage Range	600Vdc~4000Vdc	
Capacitance Range	48 $\mu$ F~5600 $\mu$ F	
Capacitance Tolerance	$\pm 5\%$ (J); $\pm 10\%$ (K)	
Test Voltage Between Terminals	1.5U <sub>N</sub> (10s, 20 $^{\circ}$ C $\pm 5^{\circ}$ C)	
Test Voltage Between Terminals And Case	U <sub>N</sub> <1500Vdc, 3000Vac(10s, 50Hz, 20 $^{\circ}$ C $\pm 5^{\circ}$ C) U <sub>N</sub> $\geq$ 1500Vdc, ( $\sqrt{2}$ U <sub>N</sub> +1000)Vac(10s, 50Hz, 20 $^{\circ}$ C $\pm 5^{\circ}$ C)	
tg $\delta_d$	0.0002	
IR $\times$ C <sub>N</sub>	$\geq 5000$ s (20 $^{\circ}$ C, 500Vdc, 1min)	
Over Voltage	1.1 U <sub>N</sub> (30% of on-load-dur.)	
	1.15 U <sub>N</sub> (30min/day)	
	1.2 U <sub>N</sub> (5min/day)	
	1.3 U <sub>N</sub> (1min/day)	
	1.5 U <sub>N</sub> (30ms every time, 1000times during the life of the capacitor)	
Max. Altitude	2000m	
Max. Torque of terminals	M6: 5Nm	M8: 6 Nm
Max. Torque of Installation	10 Nm	
Installation	Any Position	
Lifetime Expectancy	100000 hours (U <sub>N</sub> , $\Theta_{hs} = 70^{\circ}$ C)	
Failure rate	50 FIT	

Note: The effect of altitude on convection cooling and external insulation should be taken into consideration, if the altitude exceeds 2000m.



## ■ Part number system

The 18 digits part number is formed as follow:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

C	3	B															
---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Digit 1 to 3 Series code of film capacitor

Digit 4 to 5 DC rated voltage

1U=600V 1V=700V 2K=800V 1X=900V 3A=1000V

1M=1100V 3L=1200V 2M=1300V 3M=1400V 4M=1500V

3D=2000V 2N=2200V 1N=2400V 3N=2600V 6P=2800V 4Q=3000V

Digit 6 to 8 Rated capacitance value

For example: 127=12×10<sup>7</sup>pF=120uF

Digit 9 Capacitance tolerance

J=±5%,K=±10%

Digit 10 to 11 Dimension code

φD	H	Code	φD	H	Code	φD	H	Code	φD	H	Code	φD	H	Code
86	140	10	116	140	D0	116	174	X0	116	165	0E	116	265	0T
86	120	20	116	158	E0	100	155	T0	106	120	0G	136	120	0U
76	140	30	86	225	F0	86	145	U0	136	180	0H	136	140	0V
76	120	40	86	136	G0	86	238	V0	96	95	0J	136	175	0W
86	95	50	86	75	H0	86	252	Q0	96	120	0K	136	225	0X
76	95	60	106	125	J0	60	80	R0	96	140	0L	136	265	0Y
86	155	70	116	125	K0	60	210	Y0	96	175	0M	50	113	0Z
76	155	80	50	118	L0	136	295	Z0	96	225	0N	100	95	1H
86	174	90	86	125	M0	76	225	0A	106	95	0P	100	120	1J
76	174	A0	116	230	P0	116	195	0B	106	140	0Q	100	136	1K
116	95	B0	116	223.5	S0	116	145	0C	106	175	0R	100	140	1B
116	120	C0	116	135	W0	116	225	0D	106	225	0S	100	174	1L

Digit 11 Internal use

Digit 12 to 15 Terminals code(refer to table 1)

**Table 1 Terminals code**

Male terminals code

Digit 12		Digit 13		Digit 14		Digit 15	
code	Terminal form	code	Fix style	code	Length of terminals	code	Specificaions of terminal
2	Male Terminals	7	Bottom-bolt M12	0	20mm	0	M8(P=32)
		8	Ring-clip in the middle of case	2	16mm	2	M8(P=45)
				4	15mm	5	M8(P=50)
				5	13mm		
				6	25mm		

Female terminals code

Digit 12		Digit 13		Digit 14		Digit 15	
code	Terminal form	code	Fix style	code	Depth of terminals	code	Specificaions of terminal
H	Thread hole type	7	Bottom-bolt M12	3	9.5mm	1	M6(P=32)
		8	Ring-clip in the middle of case			3	M6(P=45)
						4	M6(P=50)

Digit 16 to 18 Internal use



## ■ Technical data (mm)

U <sub>N</sub> (Vdc)	C <sub>N</sub> (μ F)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40℃	50 ℃	60℃	ΦD	H	H1		
600	480	1.5	45	5.6	1 560	70	65	55	76	95	101	0.60	C3B1U487-60*****
	650	1.9	50	4.7	1 560	70	63	53	76	120	126	0.70	C3B1U657-40*****
	780	2.2	55	4.6	1 550	67	59	50	76	140	146	0.75	C3B1U787-30*****
	820	1.5	40	4.3	3 060	70	70	62	76	155	161	0.90	C3B1U827-80*****
	950	1.5	45	4.2	3 090	70	70	63	76	174	180	1.00	C3B1U957-A0*****
	650	1.2	45	5.1	2 120	70	70	64	86	95	101	0.72	C3B1U657-50*****
	880	1.5	50	4.7	2 110	70	70	60	86	120	126	1.00	C3B1U887-20*****
	1000	1.8	55	4.6	2 070	70	65	55	86	136	142	1.10	C3B1U108-G0*****
	1100	1.7	55	4.6	2 180	70	67	57	86	140	146	1.15	C3B1U118-10*****
	1100	1.4	40	4.4	4 110	70	70	64	86	155	161	1.25	C3B1U118-70*****
	1300	1.4	45	4.3	4 230	70	70	64	86	174	180	1.30	C3B1U138-90*****
	2000	1.1	55	3.0	6 510	70	70	70	86	252	258	1.80	C3B1U208-Q0*****
	900	1.3	45	4.7	2 900	70	70	58	100	95	100	1.20	C3B1U907-1H*****
	1 200	1.4	50	4.1	2 850	70	70	58	100	120	125	1.48	C3B1U128-1J*****
	1 400	1.5	55	3.9	2 870	70	70	58	100	136	141	1.66	C3B1U148-1K*****
	1 500	1.6	55	3.8	2 740	70	70	58	100	140	145	1.72	C3B1U158-1B*****
	1 600	1.0	40	3.5	5 920	70	70	70	100	155	160	1.99	C3B1U168-T0*****
	1 800	1.0	45	3.2	5 800	70	70	70	100	174	179	2.28	C3B1U188-1L*****
	1 200	0.7	45	5.4	3 900	80	80	80	116	95	100	1.20	C3B1U128-B0*****
	1 600	1.0	50	5.0	3 830	80	80	70	116	120	125	1.50	C3B1U168-C0*****
2 000	1.1	55	4.9	3 960	80	80	67	116	140	145	1.75	C3B1U208-D0*****	
2 100	0.8	40	3.6	7 840	100	100	92	116	158	163	2.00	C3B1U218-E0*****	
2 400	0.9	45	3.4	7 810	100	100	90	116	174	179	2.20	C3B1U248-X0*****	
3 000	0.8	50	2.7	11 200	100	100	100	116	230	235	2.80	C3B1U308-P0*****	
5 600	0.8	60	2.0	15 940	100	100	100	136	295	300	4.90	C3B1U568-Z0*****	
700	360	1.6	45	5.6	1 560	70	63	53	76	95	101	0.60	C3B1V367-60*****
	480	2.1	50	4.7	1 530	68	60	50	76	120	126	0.70	C3B1V487-40*****
	580	2.4	55	4.6	1 530	64	56	48	76	140	146	0.75	C3B1V587-30*****
	620	1.5	40	4.3	3 090	70	70	62	76	155	161	0.90	C3B1V627-80*****
	720	1.6	45	4.2	3 120	70	70	61	76	174	180	1.00	C3B1V727-A0*****
	480	1.3	45	5.1	2 080	70	70	61	86	95	101	0.72	C3B1V487-50*****
	650	1.7	50	4.7	2 080	70	66	56	86	120	126	1.00	C3B1V657-20*****
	750	2.0	55	4.6	2 070	70	62	52	86	136	142	1.10	C3B1V757-G0*****
	780	1.9	55	4.6	2 060	70	63	53	86	140	146	1.15	C3B1V787-10*****
	820	1.4	40	4.4	4 080	70	70	64	86	155	161	1.25	C3B1V827-70*****
	950	1.5	45	4.3	4 120	70	70	62	86	174	180	1.30	C3B1V957-90*****
	1 500	1.1	55	3.0	6 500	70	70	70	86	252	258	1.80	C3B1V158-Q0*****
	650	1.4	45	4.7	2 710	70	69	56	100	95	100	1.20	C3B1V657-1H*****
	900	1.5	50	4.1	2 760	70	69	56	100	120	125	1.47	C3B1V908-1J*****
	1 000	1.7	55	3.9	2 650	70	67	55	100	136	141	1.67	C3B1V108-1K*****
	1 100	1.7	55	3.8	2 790	70	68	56	100	140	145	1.69	C3B1V118-1B*****
	1 100	1.0	40	3.5	5 260	70	70	70	100	155	160	2.01	C3B1V118-T0*****
	1 300	1.1	45	3.2	5 420	70	70	70	100	174	179	2.28	C3B1V138-1L*****
	920	0.7	45	5.4	3 990	80	80	80	116	95	100	1.20	C3B1V927-B0*****
	1 200	1.0	50	5.0	3 830	80	80	70	116	120	125	1.50	C3B1V128-C0*****
1 500	1.1	55	4.9	3 950	80	80	68	116	140	145	1.75	C3B1V158-D0*****	
1 500	0.8	40	3.6	7 460	100	100	93	116	158	163	2.00	C3B1V158-E0*****	
1 800	1.0	45	3.4	7 800	100	100	85	116	174	179	2.20	C3B1V188-X0*****	
2 300	0.8	50	2.7	11 440	100	100	100	116	230	235	2.80	C3B1V238-P0*****	
4 200	0.8	60	2.0	15 920	100	100	100	136	295	300	4.90	C3B1V428-Z0*****	



## ■ Technical data (mm)

U <sub>N</sub> (Vdc)	C <sub>N</sub> (μF)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
800	290	1.7	45	5.6	1 530	69	61	51	76	95	101	0.60	C3B2K297-60****+++
	400	2.2	50	4.7	1 530	66	58	49	76	120	126	0.70	C3B2K407-40****+++
	480	2.5	55	4.6	1 560	63	55	47	76	140	146	0.75	C3B2K487-30****+++
	480	1.6	40	4.3	1 540	70	70	60	76	155	161	0.90	C3B2K487-80****+++
	560	1.7	45	4.2	2 910	70	70	59	76	174	180	1.00	C3B2K567-A0****+++
	380	1.4	45	5.1	2 960	70	70	59	86	95	101	0.72	C3B2K387-50****+++
	520	1.8	50	4.7	2 010	70	64	54	86	120	126	1.00	C3B2K527-20****+++
	580	2.0	55	4.6	2 020	70	62	52	86	136	142	1.10	C3B2K587-G0****+++
	630	2.1	55	4.6	1 950	68	60	51	86	140	146	1.15	C3B2K637-10****+++
	650	1.5	40	4.4	2 030	70	70	62	86	155	161	1.25	C3B2K657-70****+++
	750	1.6	45	4.3	3 940	70	70	60	86	174	180	1.30	C3B2K757-90****+++
	1 100	1.2	55	3.0	3 960	70	70	70	86	252	258	1.80	C3B2K118-Q0****+++
	500	1.4	45	4.7	2 620	70	67	55	100	95	100	1.20	C3B2K507-1H****+++
	700	1.6	50	4.1	2 700	70	67	55	100	120	125	1.47	C3B2K707-1J****+++
	800	1.8	55	3.9	2 660	70	66	54	100	136	141	1.65	C3B2K807-1K****+++
	850	1.8	55	3.8	2 700	70	66	54	100	140	145	1.68	C3B2K857-1B****+++
	900	1.1	40	3.5	5 400	70	70	70	100	155	160	1.98	C3B2K907-T0****+++
	1	1.1	45	3.2	5 230	70	70	70	100	174	179	2.28	C3B2K108-1L****+++
	720	0.8	45	5.4	3 800	80	80	76	116	95	100	1.20	C3B2K727-B0****+++
	980	1.1	50	5.0	3 810	80	79	67	116	120	125	1.50	C3B2K987-C0****+++
1 200	1.2	55	4.9	3 860	80	77	65	116	140	145	1.75	C3B2K128-D0****+++	
1 200	0.85	40	3.6	7 280	100	100	90	116	158	163	2.00	C3B2K128-E0****+++	
1 500	1.0	45	3.4	7 920	100	100	85	116	174	179	2.20	C3B2K158-X0****+++	
1 800	0.8	50	2.7	10 910	100	100	100	116	230	235	2.80	C3B2K188-P0****+++	
3 200	0.8	60	2.0	14 780	100	100	100	136	295	300	4.90	C3B2K328-Z0****+++	
900	290	2.0	45	5.6	1 530	63	56	47	76	95	101	0.60	C3B1X297-60****+++
	400	2.6	50	4.7	1 560	61	54	45	76	120	126	0.70	C3B1X407-40****+++
	480	2.9	55	4.6	1 540	58	51	43	76	140	146	0.75	C3B1X487-30****+++
	480	1.7	40	4.3	2 910	70	69	58	76	155	161	0.90	C3B1X487-80****+++
	560	1.8	45	4.2	2 960	70	68	58	76	174	180	1.00	C3B1X567-A0****+++
	380	1.6	45	5.1	2 010	70	65	55	86	95	101	0.72	C3B1X387-50****+++
	520	2.1	50	4.7	2 020	68	60	50	86	120	126	1.00	C3B1X527-20****+++
	580	2.2	55	4.6	1 950	67	59	50	86	136	142	1.10	C3B1X587-G0****+++
	630	2.4	55	4.6	2 030	64	56	48	86	140	146	1.15	C3B1X637-10****+++
	650	1.5	40	4.4	3 940	70	70	62	86	155	161	1.25	C3B1X657-70****+++
	750	1.6	45	4.3	3 960	70	70	60	86	174	180	1.30	C3B1X757-90****+++
	1 100	1.3	55	3.0	5 810	70	70	70	86	252	258	1.80	C3B1X118-Q0****+++
	500	1.4	45	4.7	2 620	70	67	55	100	95	100	1.20	C3B1X507-1H****+++
	700	1.6	50	4.1	2 700	70	67	55	100	120	125	1.47	C3B1X707-1J****+++
	800	1.8	55	3.9	2 660	70	66	54	100	136	141	1.65	C3B1X807-1K****+++
	850	1.8	55	3.8	2 700	70	66	54	100	140	145	1.68	C3B1X857-1B****+++
	900	1.1	40	3.5	5 400	70	70	70	100	155	160	1.98	C3B1X907-T0****+++
	1	1.1	45	3.2	5 230	70	70	70	100	174	179	2.28	C3B1X108-1L****+++
	720	0.9	45	5.4	3 800	80	80	71	116	95	100	1.20	C3B1X727-B0****+++
	980	1.2	50	5.0	3 810	80	76	64	116	120	125	1.50	C3B1X987-C0****+++
1 200	1.4	55	4.9	3 860	80	71	60	116	140	145	1.75	C3B1X128-D0****+++	
1 200	0.9	40	3.6	7 280	100	100	87	116	158	163	2.00	C3B1X128-E0****+++	
1 500	1.1	45	3.4	7 920	100	96	81	116	174	179	2.20	C3B1X 158-X0****+++	
1 800	0.8	50	2.7	10 910	100	100	100	116	230	235	2.80	C3B1X 188-P0****+++	
3 200	0.8	60	2.0	14 780	100	100	100	136	295	300	4.90	C3B1X 328-Z0****+++	



## ■ Technical data (mm)

U <sub>N</sub> (Vdc)	C <sub>N</sub> (μF)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1 000	220	2.2	45	5.6	1 460	60	53	45	76	95	101	0.60	C3B3A227-60****+++
	300	2.9	50	4.7	1 460	57	51	43	76	120	126	0.70	C3B3A307-40****+++
	360	3.3	55	4.6	1 450	54	48	41	76	140	146	0.75	C3B3A367-30****+++
	360	1.9	40	4.3	2 740	70	65	55	76	155	161	0.90	C3B3A367-80****+++
	420	2.0	45	4.2	2 780	70	65	55	76	174	180	1.00	C3B3A427-A0****+++
	290	1.8	45	5.1	1 920	70	62	52	86	95	101	0.72	C3B3A297-50****+++
	400	2.3	50	4.7	1 950	65	57	48	86	120	126	1.00	C3B3A407-20****+++
	470	2.2	55	4.6	1 980	67	59	50	86	136	142	1.10	C3B3A477-G0****+++
	480	2.6	55	4.6	1 930	61	54	46	86	140	146	1.15	C3B3A487-10****+++
	500	1.6	40	4.4	3 800	70	70	60	86	155	161	1.25	C3B3A507-70****+++
	560	1.7	45	4.3	3 710	70	69	58	86	174	180	1.30	C3B3A567-90****+++
	900	1.3	55	3.0	5 960	70	70	70	86	252	258	1.80	C3B3A907-Q0****+++
	380	1.5	45	4.7	2 490	70	65	53	100	95	100	1.18	C3B3A387-1H****+++
	500	1.8	50	4.1	2 410	70	64	52	100	120	125	1.47	C3B3A507-1J****+++
	600	1.9	55	3.9	2 500	70	63	52	100	136	141	1.63	C3B3A607-1K****+++
	650	1.9	55	3.8	2 590	70	64	52	100	140	145	1.66	C3B3A657-1B****+++
	650	1.1	40	3.5	4 890	70	70	70	100	155	160	1.97	C3B3A657-T0****+++
	780	1.1	45	3.2	5 110	70	70	70	100	174	179	2.24	C3B3A787-1L****+++
	540	1.0	45	5.4	3 570	80	80	68	116	95	100	1.20	C3B3A547-B0****+++
	740	1.4	50	5.0	3 610	80	70	59	116	120	125	1.50	C3B3A747-C0****+++
900	1.5	55	4.9	3 620	78	69	58	116	140	145	1.75	C3B3A907-D0****+++	
900	0.95	40	3.6	6 840	100	100	85	116	158	163	2.00	C3B3A907-E0****+++	
1 100	1.2	45	3.4	7 280	100	92	78	116	174	179	2.20	C3B3A118-X0****+++	
1 400	0.9	50	2.7	10 630	100	100	100	116	230	235	2.80	C3B3A148-P0****+++	
2 500	0.9	60	2.0	14 470	100	100	100	136	295	300	4.90	C3B3A258-Z0****+++	
1100	180	2.3	45	5.6	1 400	59	52	44	76	95	101	0.60	C3B1M187-60****+++
	250	3.0	50	4.7	1 430	56	50	42	76	120	126	0.70	C3B1M257-40****+++
	300	3.5	55	4.6	1 420	53	47	39	76	140	146	0.75	C3B1M307-30****+++
	310	1.9	40	4.3	2 770	70	65	55	76	155	161	0.90	C3B1M317-80****+++
	360	2.0	45	4.2	2 800	70	65	55	76	174	180	1.00	C3B1M367-A0****+++
	240	1.9	45	5.1	1 870	68	60	51	86	95	101	0.72	C3B1M247-50****+++
	330	2.4	50	4.7	1 890	63	56	47	86	120	126	1.00	C3B1M337-20****+++
	420	2.3	55	4.6	2 080	65	58	49	86	136	142	1.10	C3B1M427-G0****+++
	420	1.7	40	4.4	3 750	70	63	52	86	155	161	1.25	C3B1M427-70****+++
	500	1.8	45	4.3	3 730	70	67	57	86	174	180	1.30	C3B1M507-90****+++
	750	1.3	55	3.0	5 840	70	70	70	86	252	258	1.80	C3B1M757-Q0****+++
	350	1.5	45	4.7	2 640	70	65	53	100	95	100	1.19	C3B1M357-1H****+++
	450	1.8	50	4.1	2 500	70	63	51	100	120	125	1.49	C3B1M457-1J****+++
	520	2.0	55	3.9	2 500	70	62	50	100	136	141	1.67	C3B1M527-1K****+++
	550	2.1	55	3.8	2 520	70	62	51	100	140	145	1.71	C3B1M557-1B****+++
	580	1.1	40	3.5	5 020	70	70	70	100	155	160	2.00	C3B1M587-T0****+++
	650	1.2	45	3.2	4 900	70	70	70	100	174	179	2.30	C3B1M657-1L****+++
	450	1.0	45	5.4	3 500	80	80	68	116	95	100	1.20	C3B1M457-B0****+++
	620	1.4	50	5.0	3 550	80	70	59	116	120	125	1.50	C3B1M627-C0****+++
	750	1.6	55	4.9	3 550	75	66	56	116	140	145	1.75	C3B1M757-D0****+++
780	0.9	40	3.6	6 960	100	100	85	116	158	163	2.00	C3B1M787-E0****+++	
920	1.1	45	3.4	7 150	100	96	81	116	174	179	2.20	C3B1M927-X0****+++	
1 200	0.9	50	2.7	10 710	100	100	100	116	230	235	2.80	C3B1M128-P0****+++	
2 200	0.9	60	2.0	14 960	100	100	100	136	295	300	4.90	C3B1M228-Z0****+++	



## ■ Technical data (mm)

U <sub>N</sub> (Vdc)	C <sub>N</sub> (μF)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1 200	140	2.7	45	5.6	1 330	55	48	41	76	95	101	0.60	C3B3L147-60*****
	200	3.4	50	4.7	1 400	53	47	40	76	120	126	0.70	C3B3L207-40*****
	240	3.9	55	4.6	1 380	50	44	37	76	140	146	0.75	C3B3L247-30*****
	240	2.0	40	4.3	2 630	70	64	54	76	155	161	0.90	C3B3L247-80*****
	280	2.1	45	4.2	2 670	70	63	53	76	174	180	1.00	C3B3L287-A0*****
	190	2.1	45	5.1	1 810	65	57	48	86	95	101	0.72	C3B3L197-50*****
	260	2.7	50	4.7	1 810	60	53	44	86	120	126	1.00	C3B3L267-20*****
	320	2.5	55	4.6	1 930	63	55	47	86	136	142	1.10	C3B3L327-G0*****
	330	3.0	55	4.6	1 900	57	50	43	86	140	146	1.15	C3B3L337-10*****
	330	1.8	40	4.4	3 610	70	66	56	86	155	161	1.25	C3B3L337-70*****
	380	1.9	45	4.3	3 610	70	65	55	86	174	180	1.30	C3B3L387-90*****
	580	1.5	55	3.0	5 520	70	70	70	86	252	258	1.80	C3B3L587-Q0*****
	250	1.7	45	4.7	2 320	70	61	50	100	95	100	1.19	C3B3L257-1H*****
	350	2.0	50	4.1	2 390	70	61	50	100	120	125	1.45	C3B3L357-1J*****
	400	2.2	55	3.9	2 360	69	59	49	100	136	141	1.63	C3B3L407-1K*****
	420	2.2	55	3.8	2 370	69	59	49	100	140	145	1.67	C3B3L427-1B*****
	450	1.2	40	3.5	4 790	70	70	70	100	155	160	1.96	C3B3L457-T0*****
	500	1.2	45	3.2	4 640	70	70	70	100	174	179	2.26	C3B3L507-1L*****
	360	1.1	45	5.4	3 420	80	76	64	116	95	100	1.20	C3B3L367-B0*****
	500	1.6	50	5.0	3 490	75	66	55	116	120	125	1.50	C3B3L507-C0*****
600	1.8	55	4.9	3 450	71	63	53	116	140	145	1.75	C3B3L607-D0*****	
620	1.0	40	3.6	6 780	100	98	83	116	158	163	2.00	C3B3L627-E0*****	
720	1.2	45	3.4	6 740	100	92	78	116	174	179	2.20	C3B3L727-X0*****	
950	0.9	50	2.7	10 210	100	100	100	116	230	235	2.80	C3B3L957-P0*****	
1 700	0.9	60	2.0	13 920	100	100	100	136	295	300	4.90	C3B3L178-Z0*****	
1 300	120	2.9	45	5.6	1 310	53	46	39	76	95	101	0.60	C3B2M127-60*****
	170	3.7	50	4.7	1 360	51	45	38	76	120	126	0.70	C3B2M177-40*****
	210	4.1	55	4.6	1 390	49	43	36	76	140	146	0.75	C3B2M217-30*****
	210	2.1	40	4.3	2 640	70	62	53	76	155	161	0.90	C3B2M217-80*****
	240	2.3	45	4.2	2 620	68	60	51	76	174	180	1.00	C3B2M247-A0*****
	170	2.2	45	5.1	1 850	63	56	47	86	95	101	0.72	C3B2M177-50*****
	230	2.8	50	4.7	1 840	58	52	44	86	120	126	1.00	C3B2M237-20*****
	270	2.8	55	4.6	1 860	59	52	44	86	136	142	1.10	C3B2M277-G0*****
	270	3.3	55	4.6	1 780	54	48	41	86	140	146	1.15	C3B2M277-10*****
	280	1.8	40	4.4	3 510	70	66	56	86	155	161	1.25	C3B2M287-70*****
	320	1.9	45	4.3	3 490	70	65	55	86	174	180	1.30	C3B2M327-90*****
	520	1.5	55	3.0	5 670	70	70	67	86	252	258	1.80	C3B2M527-Q0*****
	210	1.8	45	4.7	2 270	69	60	49	100	95	100	1.19	C3B2M217-1H*****
	280	2.1	50	4.1	2 230	67	58	48	100	120	125	1.47	C3B2M287-1J*****
	330	2.3	55	3.9	2 270	66	57	47	100	136	141	1.64	C3B2M337-1K*****
	360	2.3	55	3.8	2 370	67	58	47	100	140	145	1.67	C3B2M367-1B*****
	380	1.2	40	3.5	4 720	70	70	69	100	155	160	1.96	C3B2M387-T0*****
	420	1.3	45	3.2	4 540	70	70	70	100	174	179	2.26	C3B2M427-1L*****
	320	1.2	45	5.4	3 490	80	73	62	116	95	100	1.20	C3B2M327-B0*****
	430	1.6	50	5.0	3 440	75	66	55	116	120	125	1.50	C3B2M437-C0*****
520	1.8	55	4.9	3 430	71	63	53	116	140	145	1.75	C3B2M527-D0*****	
540	1.0	40	3.6	6 770	100	98	83	116	158	163	2.00	C3B2M547-E0*****	
630	1.2	45	3.4	6 760	100	92	78	116	174	179	2.20	C3B2M637-X0*****	
820	0.9	50	2.7	10 100	100	100	100	116	230	235	2.80	C3B2M827-P0*****	
1 500	1.0	60	2.0	14 080	100	100	100	136	295	300	4.90	C3B2M158-Z0*****	





## ■ Technical data (mm)

U <sub>N</sub> (Vdc)	C <sub>N</sub> (μF)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1 400	100	3.1	45	5.6	1 260	51	45	38	76	95	101	0.60	C3B3M107-60****+++
	140	4.0	50	4.7	1 290	49	43	36	76	120	126	0.70	C3B3M147-40****+++
	170	4.6	55	4.6	1 290	46	41	34	76	140	146	0.75	C3B3M177-30****+++
	170	2.3	40	4.3	2 460	67	59	50	76	155	161	0.90	C3B3M177-80****+++
	200	2.4	45	4.2	2 520	67	59	50	76	174	180	1.00	C3B3M207-A0****+++
	140	2.4	45	5.1	1 760	61	53	45	86	95	101	0.72	C3B3M147-50****+++
	190	3.1	50	4.7	1 750	56	49	41	86	120	126	1.00	C3B3M197-20****+++
	230	2.9	55	4.6	1 800	58	51	43	86	136	142	1.10	C3B3M237-G0****+++
	240	1.9	40	4.4	3 470	70	65	55	86	155	161	1.25	C3B3M247-70****+++
	270	2.1	45	4.3	3 400	70	62	53	86	174	180	1.30	C3B3M277-90****+++
	420	1.5	55	3.0	5 210	70	70	70	86	252	258	1.80	C3B3M427-Q0****+++
	180	1.8	45	4.7	2 240	68	59	48	100	95	100	1.19	C3B3M187-1H****+++
	250	2.2	50	4.1	2 300	67	58	47	100	120	125	1.45	C3B3M257-1J****+++
	290	2.4	55	3.9	2 300	65	57	46	100	136	141	1.63	C3B3M297-1K****+++
	320	1.2	40	3.5	4 580	70	70	68	100	155	160	1.96	C3B3M327-T0****+++
	360	1.3	45	3.2	4 490	70	70	69	100	174	179	2.26	C3B3M367-1L****+++
	260	1.3	45	5.4	3 220	80	70	59	116	95	100	1.20	C3B3M267-B0****+++
	360	1.8	50	5.0	3 280	70	62	52	116	120	125	1.50	C3B3M367-C0****+++
	450	2.0	55	4.9	3 390	67	59	50	116	140	145	1.75	C3B3M457-D0****+++
	460	1.1	40	3.6	6 540	100	94	79	116	158	163	2.00	C3B3M467-E0****+++
540	1.3	45	3.4	6 690	89	79	66	116	174	179	2.20	C3B3M547-X0****+++	
700	0.9	50	2.7	9 950	100	94	79	116	230	235	2.80	C3B3M707-P0****+++	
1 300	1.05	60	2.0	14 080	100	100	97	136	295	300	4.90	C3B3M138-Z0****+++	
1 500	90	3.3	45	5.6	1 220	49	44	37	76	95	101	0.60	C3B4M906-60****+++
	120	4.4	50	4.7	1 200	47	41	35	76	120	126	0.70	C3B4M127-40****+++
	150	4.9	55	4.6	1 230	45	39	33	76	140	146	0.75	C3B4M157-30****+++
	150	2.4	40	4.3	2 340	66	58	49	76	155	161	0.90	C3B4M157-80****+++
	170	2.5	45	4.2	2 310	65	58	49	76	174	180	1.00	C3B4M177-A0****+++
	120	2.6	45	5.1	1 630	58	51	43	86	95	101	0.72	C3B4M127-50****+++
	170	3.3	50	4.7	1 690	54	48	40	86	120	126	1.00	C3B4M177-20****+++
	200	3.0	55	4.6	1 720	57	50	43	86	136	142	1.10	C3B4M207-G0****+++
	210	2.0	40	4.4	3 280	70	63	53	86	155	161	1.25	C3B4M217-70****+++
	240	2.1	45	4.3	3 260	70	62	53	86	174	180	1.30	C3B4M247-90****+++
	380	1.5	55	3.0	5 080	70	70	70	86	252	258	1.80	C3B4M387-Q0****+++
	160	1.9	45	4.7	2 150	67	58	47	100	95	100	1.18	C3B4M167-1H****+++
	210	2.3	50	4.1	2 080	65	56	46	100	120	125	1.46	C3B4M217-1J****+++
	250	2.5	55	3.9	2 140	64	55	45	100	136	141	1.63	C3B4M257-1K****+++
	280	1.3	40	3.5	4 320	70	70	67	100	155	160	1.96	C3B4M287-T0****+++
	320	1.3	45	3.2	4 300	70	70	68	100	174	179	2.24	C3B4M327-1L****+++
	230	1.4	45	5.4	3 120	77	68	57	116	95	100	1.20	C3B4M237-B0****+++
	320	1.9	50	5.0	3 180	68	60	51	116	120	125	1.50	C3B4M327-C0****+++
	390	2.1	55	4.9	3 200	66	58	49	116	140	145	1.75	C3B4M397-D0****+++
	420	1.1	40	3.6	6 550	100	94	79	116	158	163	2.00	C3B4M427-E0****+++
470	1.3	45	3.4	6 280	89	79	66	116	174	179	2.20	C3B4M477-X0****+++	
600	1.0	50	2.7	9 200	100	89	75	116	230	235	2.80	C3B4M607-P0****+++	
1 100	1.1	60	2.0	12 850	100	100	95	136	295	300	4.90	C3B4M118-Z0****+++	



## ■ Technical data (mm)

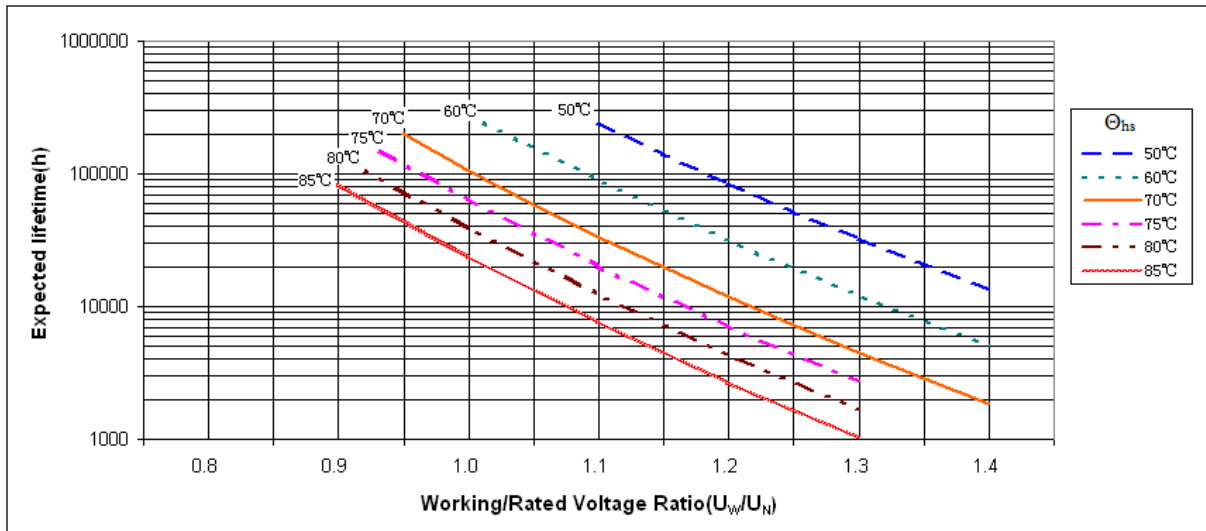
U <sub>N</sub> (Vdc)	C <sub>N</sub> (μF)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
2 000	110	3.5	65	4.5	1830	48	42	35	86	140	146	1.05	C3B3D117-10****+++
	180	1.8	60	3.2	3660	78	69	58	86	225	231	1.65	C3B3D187-F0****+++
	180	2.1	60	3.5	3660	70	61	52	116	120	125	1.60	C3B3D187-C0****+++
	220	2.3	65	3.3	3660	69	60	51	116	140	145	1.85	C3B3D227-D0****+++
	260	1.1	55	2.9	7360	100	93	79	116	174	179	2.30	C3B3D267-X0****+++
	360	1.3	60	2.4	7330	100	93	79	116	225	230	2.85	C3B3D367-0D****+++
	250	1.8	60	2.9	5090	78	67	55	136	120	125	2.15	C3B3D257-0U****+++
	310	2.0	65	2.7	5150	77	66	54	136	140	145	2.45	C3B3D317-0V****+++
	360	1.0	55	2.4	10200	100	99	81	136	175	180	3.15	C3B3D367-0W****+++
	500	1.2	60	2.1	10100	100	98	80	136	225	230	3.90	C3B3D507-0X****+++
610	1.3	60	1.9	10100	100	98	80	136	265	270	4.50	C3B3D617-0Y****+++	
2 200	90	3.7	65	4.5	1790	46	41	34	86	140	146	1.05	C3B2N906-10****+++
	150	1.9	60	3.2	3670	77	68	57	86	225	231	1.65	C3B2N157-F0****+++
	140	2.2	60	3.6	3420	67	59	50	116	120	125	1.60	C3B2N147-C0****+++
	170	2.5	65	3.3	3390	66	58	49	116	140	145	1.85	C3B2N177-D0****+++
	210	1.1	55	2.9	7150	100	91	77	116	174	179	2.30	C3B2N217-X0****+++
	290	1.4	60	2.4	7100	100	91	77	116	225	230	2.90	C3B2N297-0D****+++
	200	1.9	60	2.9	4890	76	66	54	136	120	125	2.15	C3B2N207-0U****+++
	250	2.1	65	2.7	4990	75	65	53	136	140	145	2.45	C3B2N257-0V****+++
	290	1.0	55	2.4	9870	100	97	79	136	175	180	3.15	C3B2N297-0W****+++
	400	1.2	60	2.1	9790	100	96	79	136	225	230	3.90	C3B2N407-0X****+++
500	1.4	60	1.9	9990	100	97	79	136	265	270	4.50	C3B2N507-0Y****+++	
2 400	75	3.9	65	4.5	1770	45	40	33	86	140	146	1.05	C3B1N756-10****+++
	120	2.0	60	3.2	3470	74	65	55	86	225	231	1.65	C3B1N127-F0****+++
	120	2.3	60	3.6	3470	66	58	49	116	120	125	1.60	C3B1N127-C0****+++
	140	2.6	65	3.3	3310	64	56	47	116	140	145	1.85	C3B1N147-D0****+++
	170	1.2	55	2.9	6840	100	89	75	116	174	179	2.30	C3B1N177-X0****+++
	240	1.4	60	2.5	6940	100	89	75	116	225	230	2.85	C3B1N247-0D****+++
	160	2.0	60	3.0	4630	73	63	52	136	120	125	2.20	C3B1N167-0U****+++
	200	2.2	65	2.8	4720	72	63	51	136	140	145	2.50	C3B1N207-0V****+++
	240	1.1	55	2.5	9660	100	95	78	136	175	180	3.15	C3B1N247-0W****+++
	330	1.3	60	2.1	9550	100	94	77	136	225	230	3.90	C3B1N337-0X****+++
410	1.4	60	1.9	9690	100	95	77	136	265	270	4.50	C3B1N417-0Y****+++	
2 600	63	4.1	65	4.5	1730	43	38	32	86	140	146	1.05	C3B3N636-10****+++
	100	2.1	60	3.2	3370	72	63	53	86	225	231	1.65	C3B3N107-F0****+++
	100	2.4	60	3.6	3370	64	57	48	116	120	125	1.60	C3B3N107-C0****+++
	120	2.7	65	3.3	3310	63	55	47	116	140	145	1.85	C3B3N127-D0****+++
	140	1.2	55	2.9	6570	98	87	73	116	174	179	2.30	C3B3N147-X0****+++
	200	1.5	60	2.5	6750	99	87	73	116	225	230	2.85	C3B3N207-0D****+++
	140	2.0	60	3.0	4730	73	63	51	136	120	125	2.15	C3B3N147-0U****+++
	170	2.3	65	2.8	4690	71	62	50	136	140	145	2.45	C3B3N177-0V****+++
	200	1.1	55	2.5	9390	100	94	76	136	175	180	3.15	C3B3N207-0W****+++
	284	1.3	60	2.1	9590	100	93	76	136	225	230	3.90	C3B3N287-0X****+++
340	1.5	60	1.9	9380	100	92	76	136	265	270	4.50	C3B3N347-0Y****+++	
2 800	54	4.3	65	4.5	1710	42	37	32	86	140	146	1.05	C3B6P546-10****+++
	88	2.2	60	3.2	3430	71	62	53	86	225	231	1.65	C3B6P886-F0****+++
	86	2.5	60	3.6	3350	63	56	47	116	120	125	1.60	C3B6P866-C0****+++
	100	2.9	65	3.4	3180	61	53	45	116	140	145	1.85	C3B6P107-D0****+++
	120	1.3	55	2.9	6500	97	85	72	116	174	179	2.30	C3B6P127-X0****+++
	170	1.5	60	2.5	6620	96	85	72	116	225	230	2.85	C3B6P177-0D****+++
	120	2.1	60	3.0	4680	71	62	51	136	120	125	2.15	C3B6P127-0U****+++
	140	2.4	65	2.8	4450	69	59	49	136	140	145	2.50	C3B6P147-0V****+++
	170	1.1	55	2.5	9210	100	92	75	136	175	180	3.15	C3B6P177-0W****+++
	240	1.3	60	2.1	9350	100	92	75	136	225	230	3.90	C3B6P247-0X****+++
290	1.5	60	1.9	9230	100	91	74	136	265	270	4.50	C3B6P297-0Y****+++	



■ Technical data (mm)

U <sub>N</sub> (Vdc)	C <sub>N</sub> (μF)	ESR @1kHz (mΩ)	L <sub>s</sub> (nH)	R <sub>th</sub> (K/W)	Ī (A)	I <sub>max</sub> (A)			Dimension			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
3 000	46	4.6	65	4.6	1570	41	36	30	86	140	146	1.05	C3B4Q466-10****+++
	75	2.3	60	3.2	3150	69	61	51	86	225	231	1.65	C3B4Q756-F0****+++
	74	2.6	60	3.6	3110	62	54	46	116	120	125	1.60	C3B4Q746-C0****+++
	90	2.9	65	3.3	3090	60	53	45	116	140	145	1.80	C3B4Q906-D0****+++
	100	1.3	55	3.0	5840	94	83	70	116	174	179	2.35	C3B4Q107-X0****+++
	140	1.6	60	2.5	5880	93	82	69	116	225	230	2.90	C3B4Q147-0D****+++
	100	2.2	60	3.0	4200	69	60	49	136	120	125	2.15	C3B4Q107-0U****+++
	120	2.5	65	2.8	4120	67	58	47	136	140	145	2.50	C3B4Q127-0V****+++
	140	1.2	55	2.5	8180	100	89	73	136	175	180	3.15	C3B4Q147-0W****+++
	200	1.4	60	2.2	8400	100	89	73	136	225	230	3.90	C3B4Q207-0X****+++
250	1.6	60	1.9	8580	100	89	73	136	265	270	4.50	C3B4Q257-0Y****+++	
3 200	40	4.9	65	4.6	1470	40	35	30	86	140	146	1.05	C3B6Q406-10****+++
	65	2.4	60	3.2	2930	67	59	50	86	225	231	1.65	C3B6Q656-F0****+++
	64	2.7	60	3.6	2880	60	53	45	116	120	125	1.60	C3B6Q646-C0****+++
	78	3.1	65	3.4	2870	59	52	44	116	140	145	1.80	C3B6Q786-D0****+++
	92	1.3	55	3.0	5760	94	83	70	116	174	179	2.30	C3B6Q926-X0****+++
	120	1.7	60	2.5	5410	91	80	68	116	225	230	2.90	C3B6Q127-0D****+++
	90	2.2	60	3.0	4050	69	59	49	136	120	125	2.15	C3B6Q906-0U****+++
	110	2.5	65	2.8	4050	67	58	47	136	140	145	2.45	C3B6Q117-0V****+++
	120	1.2	55	2.6	7520	100	87	71	136	175	180	3.20	C3B6Q127-0W****+++
	180	1.4	60	2.2	8110	100	89	72	136	225	230	3.85	C3B6Q187-0X****+++
220	1.6	60	1.9	8100	100	88	72	136	265	270	4.45	C3B6Q227-0Y****+++	
3 600	28	4.0	65	4.6	1650	43	38	32	86	140	146	1.10	C3B7R286-10****+++
	45	2.0	60	3.3	3290	72	64	54	86	225	231	1.70	C3B7R456-F0****+++
	44	2.3	60	3.7	3220	64	57	48	116	120	125	1.65	C3B7R446-C0****+++
	54	2.7	65	3.4	3190	63	55	47	116	140	145	1.90	C3B7R546-D0****+++
	88	1.4	60	2.5	6440	98	87	73	116	225	230	3.00	C3B7R886-0D****+++
	110	1.6	60	2.3	6510	97	85	72	116	265	270	3.45	C3B7R117-0T****+++
	61	2.0	60	3.0	4460	72	63	51	136	120	125	2.25	C3B7R616-0U****+++
	75	2.3	65	2.8	4440	71	61	50	136	140	145	2.55	C3B7R756-0V****+++
	120	1.3	60	2.2	8780	100	92	75	136	225	230	4.05	C3B7R127-0X****+++
	150	1.5	60	2.0	8880	100	92	75	136	265	270	4.70	C3B7R157-0Y****+++
4 000	24	4.2	65	4.6	1650	42	37	32	86	140	146	1.10	C3B3G246-10****+++
	38	2.1	60	3.3	3230	70	62	53	86	225	231	1.70	C3B3G386-F0****+++
	37	2.4	60	3.7	3140	63	55	47	116	120	125	1.65	C3B3G376-C0****+++
	46	2.8	65	3.4	3160	61	54	46	116	140	145	1.90	C3B3G466-D0****+++
	74	1.5	60	2.5	6290	96	85	72	116	225	230	3.00	C3B3G746-0D****+++
	92	1.7	60	2.3	6330	94	83	70	116	265	270	3.45	C3B3G926-0T****+++
	52	2.1	60	3.0	4420	71	62	50	136	120	125	2.25	C3B3G526-0U****+++
	64	2.3	65	2.8	4400	69	60	49	136	140	145	2.55	C3B3G646-0V****+++
	100	1.3	60	2.2	8500	100	90	73	136	225	230	4.05	C3B3G107-0X****+++
	130	1.5	60	2.0	8940	100	91	37	136	265	270	4.65	C3B3G137-0Y****+++

## Expected lifetime curve



- Note:
1. “-”=capacitance tolerance code,  $J=\pm 5.0\%$ ,  $K=\pm 10\%$
  2. “\*\*\*\*”=terminals code(refer to table1),terminals can be male or female.
  3. “+++”=Internal use
  4. “ $I_{max}$ ”=Maxium allowable r.m.s current at  $\Theta_{amb}(40^{\circ}\text{C}, 50^{\circ}\text{C}, 60^{\circ}\text{C})$ .  $\Theta_{hs}$  will reach the maximum value on this condition.
  5. “ $R_{th}$ ”=  $R_{th}$  between hotspot and ambient on natural cooling condition.
  6. Sizes above are normally used dimension,other dimension can be produced in pursuance of customer’s request.  
Sizes of terminals please refer to corresponding national standard.
  7. Customers also can choose the capacitor with or without the bottom bolt M12.
  8.  $\Theta_{hs}=\Theta_{amb}+I_{rms}^2\times ESR\times R_{th}$ .