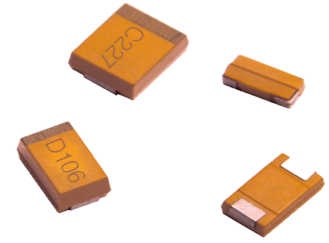




**FEATURES AND USES**

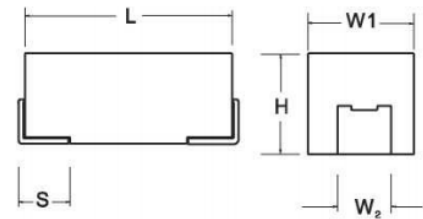
- ◆ Resin molding packaging, good sealing, sheet type, small volume, light weight, polarity;
- ◆ Excellent and stable electrical performance, high reliability, good storage stability; conductive polymer electrolyte, ultra-low ESR (equivalent series resistance), high-frequency capacity retention, large ripple current resistance;
- ◆ High-level breakdown voltage;
- ◆ Benign failure mode;
- ◆ Suitable for aircraft, vehicles, ships, radar, electronics, communication and other fields with the reliability requirements of the electronic equipment surface mount DC or pulsation circuit;
- ◆ New optional dual 85 products: using new technology, the products have the ability to store and work at high temperature and high humidity for a long time (85°C, 85%RH, 1000h) on the basis of maintaining the original performance.  
If users need double 85 products, please indicate them in the order contract.
- ◆ Implementation standards: GJB2283-95, QJ / PWV502-2012



(Note: When purchasing double 85 products, please note "double 85" in the notes of the order contract)

**BASIC MECHANICAL DESIGN FEATURE**

Use temperature range: -55~125C °C; reduction design see Application Guidance 4.1;  
 Rated voltage, downrated voltage and nominal capacitance: see Table 2;  
 allowable allowable capacity: K: ±10%; M: ±20%;  
 Room temperature DC leakage current, room temperature loss Angle is cut: do not exceed that specified in Table 2;  
 Equivalent series resistance ESR (25°C, 100KHz): not exceeding that specified in Table 2;  
 Marked "\*" means the default delivery ESR, not marked "\*", the ESR value is a special customization, the order should be noted in the order;  
 Overall dimensions and shell code: see Figure 1 and Table 1.



chat1

Table 1 Overall dimensions of the capacitors (mm)

hull	L	W <sub>1</sub>	H	S	W <sub>2</sub>
A	3.2±0.3	1.6±0.3	1.6±0.3	0.8±0.2	1.2±0.2
B	3.5±0.3	2.8±0.3	1.9±0.3	0.8±0.2	2.2±0.2
C	6.0±0.3	3.2±0.3	2.5±0.3	1.3±0.2	2.2±0.2
H	7.3±0.3	4.3±0.3	2.1±0.3	1.7±0.2	2.4±0.2
D	7.3±0.3	4.3±0.3	2.8±0.3	1.5±0.2	2.4±0.2
E	7.3±0.3	4.3±0.3	4.1±0.3	1.5±0.2	2.4±0.2
F	7.3±0.3	6.1±0.3	2.5±0.3	1.35±0.2	3.0±0.2
V	7.3±0.3	6.1±0.3	3.6±0.3	1.5±0.2	3.0±0.2
W	7.3±0.3	6.1±0.3	4.1±0.3	1.5±0.2	3.0 S. 0.2
X	7.3±0.3	6.0±0.3	6.0±0.3	1.5±0.2	4.0±0.2
Z	7.3±0.3	6.0±0.3	8.0±0.3	1.5±0.2	4.0±0.2
G	8.5±0.3	7.5±0.3	4.5±0.3	1.8±0.2	4.5±0.2
S	11.0±0.3	9.0±0.3	4.5±0.3	1.5±0.2	10.5±0.4
T	11.0±0.3	12.5±0.3	5.5±0.3	2.1±0.2	10.5±0.4
Y	8.0±0.3	12.0±0.3	8.0±0.3	1.4±0.2	8.0±0.4

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 16V												
1	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	A	0.500	0.28	5.2	42.2	52.8	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.300	0.54	5.3	42.2	52.8	-10~+10	-10~+30	-10~+50	10	12	15
4.7	A	0.500	0.28	7.5	60.1	75.2	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.300	0.54	7.5	60.2	75.2	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	7.5	60.2	75.2	-10~+10	-10~+30	-10~+50	10	12	15
6.8	A	0.500	0.28	10.8	87.0	108.8	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.300	0.54	10.9	87.0	108.8	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	10.9	87.0	108.8	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.500	0.28	16.0	128.0	160.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.300	0.54	16.0	128.0	160.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.100	1.07	16.0	128.0	160.0	-10~+10	-10~+30	-10~+50	10	12	15
15	B	0.300	0.54	24.0	192.0	240.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.100	1.07	24.0	192.0	240.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.060	1.62	24.0	192.0	240.0	-10~+10	-10~+30	-10~+50	10	12	15
18	C	0.100	1.07	28.8	230.4	288.0	-10~+10	-10~+30	-10~+50	10	12	15
18	D	0.060	1.62	28.8	230.4	288.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.060	1.69	28.8	230.4	288.0	-10~+10	-10~+30	-10~+50	10	12	15
22	B	0.300	0.54	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.150*	0.87	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.100	1.07	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.060	1.62	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.060	1.69	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
33	B	0.300	0.54	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.100	1.07	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.060	1.62	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.060	1.69	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
47	C	0.100	1.07	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.060	1.62	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.060	1.69	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
68	C	0.100	1.07	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.060	1.62	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.060	1.69	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
100	C	0.100	1.07	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 16V												
100	D	0.080*	1.40	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.060	1.62	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.080*	1.47	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.060	1.69.	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	V	0.080	1.62	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	S	0.080	2.32	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.080*	1.40	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.060	1.62	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.080*	1.47	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.060	1.69.	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	V	0.060	1.87	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	W	0.060	1.89	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	D	0.080	1.40	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.080*	1.47	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.060	1.69	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	V	0.060	1.87	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	W	0.060	1.89	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.080*	1.47	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.060*	1.69	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.025	2.62	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.080*	1.62	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.060	1.87	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	W	0.080*	1.63	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	W	0.060	1.89	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
470	V	0.080	1.62	752.0	6016.0	7520.0	-10~+10	-10~+30	-10~+50	10	12	15
470	W	0.060	1.89	752.0	6016.0	7520.0	-10~+10	-10~+30	-10~+50	10	12	15
470	X	0.080	1.98	752.0	6016.0	7520.0	-10~+10	-10~+30	-10~+50	10	12	15
470	T	0.060	2.67	752.0	6016.0	7520.0	-10~+10	-10~+30	-10~+50	10	12	15
680	W	0.080	1.63	1088.0	8704.0	10880.0	-10~+10	-10~+30	-10~+50	10	12	15
680	X	0.080	1.98	1088.0	8704.0	10880.0	-10~+10	-10~+30	-10~+50	10	12	15
680	T	0.040	3.28	1088.0	8704.0	10880.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	T	0.080	2.31	1600.0	12800.0	16000.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	T	0.040	3.28	1600.0	12800.0	16000.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	T	0.080*	2.31	2400.0	19200.0	24000.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	T	0.040	3.28	2400.0	19200.0	24000.0	-10~+10	-10~+30	-10~+50	10	12	15
2200	T	0.080*	2.31	3520.0	28160.0	35200.0	-10~+10	-10~+30	-10~+50	10	12	15
2200	T	0.040	3.28	3520.0	28160.0	35200.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 20V												
1	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 20V												
1.5	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	A	0.500	0.28	6.6	52.8	66.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.300	0.54	6.6	52.8	66.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.100	1.07	6.6	52.8	66.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.300	0.54	9.4	75.2	94.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	9.4	75.2	94.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.075	1.45	9.4	75.2	94.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.300	0.54	13.6	108.8	136.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	13.6	108.8	136.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.075	1.45	13.6	108.8	136.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.300	0.54	20.0	160.0	200.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.150*	0.87	20.0	160.0	200.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.100	1.07	20.0	160.0	200.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.075	1.45	20.0	160.0	200.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.150*	0.87	30.0	240.0	300.0	-10~+10	-10~+30	-10~+50	10	12	15
5	C	0.100	1.07	30.0	240.0	300.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.060	1.62	30.0	240.0	300.0	-10~+10	-10~+30	-10~+50	10	12	15
18	C	0.100	1.07	36.0	288.0	360.0	-10~+10	-10~+30	-10~+50	10	12	15
18	D	0.060	1.62	36.0	288.0	360.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.060	1.69	36.0	288.0	360.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.100	1.07	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.060	1.62	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.080*	1.47	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.060	1.69	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.100	1.07	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.060	1.62	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.060	1.69	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
47	C	0.100	1.07	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.080*	1.40	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.060	1.62	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.060	1.69	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.080*	1.40	136.0	1088.0	1360.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.060	1.62	136.0	1088.0	1360.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.060	1.69	136.0	1088.0	1360.0	-10~+10	-10~+30	-10~+50	10	12	15
68	V	0.060	1.87	136.0	1088.0	1360.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.080	1.41	200.0	1600.0	2000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.080*	1.47	200.0	1600.0	2000.0	-10~+10	-10~+30	-10~+50	10	12	15

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 20V												
100	E	0.060	1.69	200.0	1600.0	2000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	V	0.060	1.87	200.0	1600.0	2000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	W	0.080	1.63	200.0	1600.0	2000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.080*	1.47	300.0	2400.0	3000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.060	1.69	300.0	2400.0	3000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	V	0.080*	1.62	300.0	2400.0	3000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	V	0.060	1.87	300.0	2400.0	3000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	W	0.080*	1.63	300.0	2400.0	3000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	W	0.060	1.89	300.0	2400.0	3000.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.080*	1.47	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.060	1.69	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	V	0.080*	1.62	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	V	0.060	1.87	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	W	0.080*	1.63	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	W	0.060	1.89	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	X	0.080	1.97	440.0	3520.0	4400.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.080*	1.62	660.0	5280.0	6600.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.060	1.87	660.0	5280.0	6600.0	-10~+10	-10~+30	-10~+50	10	12	15
330	W	0.060	1.89	660.0	5280.0	6600.0	-10~+10	-10~+30	-10~+50	10	12	15
330	X	0.080	1.97	660.0	5280.0	6600.0	-10~+10	-10~+30	-10~+50	10	12	15
470	X	0.080*	1.97	940.0	7520.0	9400.0	-10~+10	-10~+30	-10~+50	10	12	15
470	X	0.040	2.79	940.0	7520.0	9400.0	-10~+10	-10~+30	-10~+50	10	12	15
470	T	0.040	3.28	940.0	7520.0	9400.0	-10~+10	-10~+30	-10~+50	10	12	15
680	T	0.080*	2.31	1360.0	10880.0	13600.0	-10~+10	-10~+30	-10~+50	10	12	15
680	T	0.040	3.28	1360.0	10880.0	13600.0	-10~+10	-10~+30	-10~+50	10	12	15
680	Y	0.04.	3.29	1360.0	10880.0	13600.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	T	0.080*	2.31	2000.0	16000.0	20000.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	T	0.040	3.28	2000.0	16000.0	20000.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	Y	0.040	3.29	2000.0	16000.0	20000.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	T	0.040	3.28	3000.0	24000.0	30000.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	Y	0.040	3.29	3000.0	24000.0	30000.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 25V												
0.68	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.150	0.87	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	B	0.300	0.54	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.150	0.87	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 25V												
2.2	B	0.300	0.54	5.5	44.0	55.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.150	0.87	5.5	44.0	55.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.120	1.15	5.5	44.0	55.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.300	0.54	8.3	66.0	82.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.150*	0.87	8.3	66.0	82.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.100	1.07	8.3	66.0	82.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	D	0.100	1.26	8.2	66.0	82.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.300	0.54	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.150*	0.87	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.075	1.45	11.7	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.120	1.21	11.7	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.300	0.54	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.150*	0.87	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.075	1.45	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.120	1.21	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.300	0.54	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.150*	0.87	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.100	1.07	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.075	1.45	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.075	1.52	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.100	1.07	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.060	1.62	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.075	1.52	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
18	C	0.100	1.07	45.0	360.0	450.0	-10~+10	-10~+30	-10~+50	10	12	15
18	D	0.060	1.62	45.0	360.0	450.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.060	1.69	45.0	360.0	450.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.100	1.07	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.080*	1.40	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.060	1.62	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.060	1.69	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.080*	1.40	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.060	1.62	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.080*	1.47	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.060	1.69	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	V	0.090	1.53	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.080*	1.40	117.5	940.0	1175.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.060	1.62	117.5	940.0	1175.0	-10~+10	-10~+30	-10~+50	10	12	15

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 25V												
47	E	0.080*	1.47	117.5	940.0	1175.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.060	1.69	117.5	940.0	1175.0	-10~+10	-10~+30	-10~+50	10	12	15
47	V	0.080	1.62	117.5	940.0	1175.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.080*	1.40	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.060	1.62	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.080*	1.47	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.060	1.69	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	V	0.080*	1.62	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	V	0.060	1.87	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	W	0.080	1.63	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.080	1.40	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.080*	1.47	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.060	1.69	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	V	0.080*	1.62	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	V	0.060	1.87	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	W	0.080*	1.63	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	W	0.060	1.89	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.080	2.31	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	V	0.080*	1.62	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
150	V	0.060	1.87	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
150	W	0.080*	1.63	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
150	W	0.060	1.89	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
150	T	0.060	2.67	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
220	V	0.060	1.87	550.0	4400.0	5500.0	-10~+10	-10~+30	-10~+50	10	12	15
220	W	0.080	1.63	550.0	4400.0	5500.0	-10~+10	-10~+30	-10~+50	10	12	15
220	X	0.080*	1.97	550.0	4400.0	5500.0	-10~+10	-10~+30	-10~+50	10	12	15
220	X	0.060	2.27	550.0	4400.0	5500.0	-10~+10	-10~+30	-10~+50	10	12	15
220	T	0.060	2.67	550.0	4400.0	5500.0	-10~+10	-10~+30	-10~+50	10	12	15
330	W	0.080	1.63	825.0	6600.0	8250.0	-10~+10	-10~+30	-10~+50	10	12	15
330	X	0.080*	1.97	825.0	6600.0	8250.0	-10~+10	-10~+30	-10~+50	10	12	15
330	X	0.060	2.27	825.0	6600.0	8250.0	-10~+10	-10~+30	-10~+50	10	12	15
330	T	0.060	2.67	825.0	6600.0	8250.0	-10~+10	-10~+30	-10~+50	10	12	15
470	T	0.080*	2.31	1175.0	9400.0	11750.0	-10~+10	-10~+30	-10~+50	10	12	15
470	T	0.060	2.67	1175.0	9400.0	11750.0	-10~+10	-10~+30	-10~+50	10	12	15
680	T	0.080*	2.31	1700.0	13600.0	17000.0	-10~+10	-10~+30	-10~+50	10	12	15
680	T	0.060	2.67	1700.0	13600.0	17000.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 35V												
0.1	A	0.600	0.26	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.1	B	0.600	0.39	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 35V												
0.47	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.200	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	A	0.500	0.28	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.200*	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.100	1.07	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	B	0.350	0.50	5.3	42.0	52.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.200*	0.75	5.3	42.0	52.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.100	1.07	5.3	42.0	52.5	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.350	0.50	7.7	61.6	77.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.200*	0.75	7.7	61.6	77.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.100	1.07	7.7	61.6	77.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.120	1.15	7.7	61.6	77.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.350	0.50	11.6	92.4	115.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.200*	0.75	11.6	92.4	115.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.100	1.07	11.6	92.4	115.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	D	0.100	1.26	11.5	92.4	115.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.350	0.50	16.5	131.6	164.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.200*	0.75	16.5	131.6	164.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	16.5	131.6	164.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.120	1.15	16.4	131.6	164.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.120	1.20	16.4	131.6	164.5	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.200*	0.75	23.8	190.4	238.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	23.8	190.4	238.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.075	1.44	23.8	190.4	238.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.120	1.20	23.8	190.4	238.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.200*	0.75	35.0	280.0	350.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.100	1.07	35.0	280.0	350.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.090*	1.32	35.0	280.0	350.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.075	1.44	35.0	280.0	350.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.075	1.51	35.0	280.0	350.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.120	1.33	35.0	280.0	350.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.090*	1.32	52.5	420.0	525.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.075	1.44	52.5	420.0	525.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.075	1.51	52.5	420.0	525.0	-10~+10	-10~+30	-10~+50	10	12	15
15	V	0.100	1.46	52.5	420.0	525.0	-10~+10	-10~+30	-10~+50	10	12	15
18	D	0.075	1.44	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.075	1.51	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
18	V	0.100	1.46	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
22	H	0.090	1.14	77.0	616.0	770.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 35V												
22	D	0.090*	1.32	77.0	616.0	770.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.075	1.44	77.0	616.0	770.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.075	1.51	77.0	616.0	770.0	-10~+10	-10~+30	-10~+50	10	12	15
22	V	0.070	1.74	77.0	616.0	770.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.120	1.34	77.0	616.0	770.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.090	1.32	115.5	924.0	1155.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.090*	1.38	115.5	924.0	1155.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.075	1.51	115.5	924.0	1155.0	-10~+10	-10~+30	-10~+50	10	12	15
33	V	0.075	1.67	115.5	924.0	1155.0	-10~+10	-10~+30	-10~+50	10	12	15
33	W	0.080	1.64	115.5	924.0	1155.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.090	1.32	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.090*	1.38	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.075	1.51	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
47	V	0.090*	1.53	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
47	V	0.075	1.67	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
47	W	0.090*	1.54	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
47	W	0.075	1.69	164.5	1316.0	1645.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.090	1.38	238.0	1904.0	2380.0	-10~+10	-10~+30	-10~+50	10	12	15
68	V	0.090*	1.53	238.0	1904.0	2380.0	-10~+10	-10~+30	-10~+50	10	12	15
68	V	0.075	1.67	238.0	1904.0	2380.0	-10~+10	-10~+30	-10~+50	10	12	15
68	W	0.090*	1.54	238.0	1904.0	2380.0	-10~+10	-10~+30	-10~+50	10	12	15
68	W	0.060	1.89	238.0	1904.0	2380.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.100	2.07	238.0	1904.0	2380.0	-10~+10	-10~+30	-10~+50	10	12	15
100	F	0.09	1.28	350	2800.0	3500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	W	0.090*	1.54	350.0	2800.0	3500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	W	0.060	1.89	350.0	2800.0	3500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.090*	2.18	350.0	2800.0	3500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.050	2.93	350.0	2800.0	3500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	W	0.090	1.54	525.0	4200.0	5250.0	-10~+10	-10~+30	-10~+50	10	12	15
150	X	0.090*	1.86	525.0	4200.0	5250.0	-10~+10	-10~+30	-10~+50	10	12	15
150	X	0.050	2.49	525.0	4200.0	5250.0	-10~+10	-10~+30	-10~+50	10	12	15
150	T	0.090*	2.18	525.0	4200.0	5250.0	-10~+10	-10~+30	-10~+50	10	12	15
150	T	0.050	2.93	525.0	4200.0	5250.0	-10~+10	-10~+30	-10~+50	10	12	15
220	X	0.090*	2.18	770.0	6160.0	7700.0	-10~+10	-10~+30	-10~+50	10	12	15
220	X	0.050	2.93	770.0	6160.0	7700.0	-10~+10	-10~+30	-10~+50	10	12	15
220	T	0.090	2.18	770.0	6160.0	7700.0	-10~+10	-10~+30	-10~+50	10	12	15
330	T	0.090*	2.18	1155.0	9240.0	11550.0	-10~+10	-10~+30	-10~+50	10	12	15
330	T	0.050	2.93	1155.0	9240.0	11550.0	-10~+10	-10~+30	-10~+50	10	12	15
470	T	0.090*	2.18	1645.0	13160.0	16450.0	-10~+10	-10~+30	-10~+50	10	12	15
470	T	0.050	2.93	1645.0	13160.0	16450.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 50V												
0.47	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	C	0.200	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.200*	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.100	1.07	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.200*	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.100	1.07	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.120	1.15	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	B	0.350	0.50	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.200*	0.75	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.100	1.07	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.350	0.50	11.0	88.0	110.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.200*	0.75	11.0	88.0	110.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.100	1.07	11.0	88.0	110.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.120	1.15	11.0	88.0	110.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	E	0.150	1.07	11.0	88.0	110.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.200*	0.75	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.100	1.07	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	H	0.100	1.09	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	D	0.100*	1.25	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	D	0.080	1.40	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	E	0.120	1.20	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.200*	0.75	23.5	188.0	235.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	23.5	188.0	235.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	H	0.100	1.09	23.5	188.0	235.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.100*	1.25	23.5	188.0	235.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.080	1.40	23.5	188.0	235.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.120	1.20	23.5	188.0	235.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.200*	0.75	34.0	272.0	340.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	34.0	272.0	340.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	H	0.100	1.09	34.0	272.0	340.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.100*	1.25	34.0	272.0	340.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.080	1.40	34.0	272.0	340.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.120	1.20	34.0	272.0	340.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.100*	1.25	50.0	400.0	500.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.080	1.40	50.0	400.0	500.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.100*	1.31	50.0	400.0	500.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.080	1.47	50.0	400.0	500.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.120	1.32	50.0	400.0	500.0	-10~+10	-10~+30	-10~+50	10	12	15
10	W	0.120	1.34	50.0	400.0	500.0	-10~+10	-10~+30	-10~+50	10	12	15

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 50V												
15	D	0.100	1.25	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.100 <sup>†</sup>	1.31	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.080	1.47	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
15	V	0.100 <sup>†</sup>	1.45	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
15	V	0.080	1.62	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
18	W	0.120	1.34	90.0	720.0	900.0	-10~+10	-10~+30	-10~+50	10	12	15
18	D	0.100	1.25	90.0	720.0	900.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.100 <sup>†</sup>	1.31	90.0	720.0	900.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.080	1.47	90.0	720.0	900.0	-10~+10	-10~+30	-10~+50	10	12	15
18	V	0.100 <sup>†</sup>	1.45	90.0	720.0	900.0	-10~+10	-10~+30	-10~+50	10	12	15
18	V	0.080	1.62	90.0	720.0	900.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.100	1.25	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.100 <sup>†</sup>	1.31	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.070	1.57	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
22	V	0.100 <sup>†</sup>	1.45	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
22	V	0.070	1.73	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.100 <sup>†</sup>	1.46	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.070	1.75	110.0	880.0	1100.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.100 <sup>†</sup>	1.31	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.070	1.57	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
33	V	0.100 <sup>†</sup>	1.45	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
33	V	0.080	1.62	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
33	W	0.100 <sup>†</sup>	1.46	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
33	W	0.080	1.63	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.100 <sup>†</sup>	1.31	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.070	1.57	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	V	0.100 <sup>†</sup>	1.45	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	V	0.070	1.73	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	W	0.100 <sup>†</sup>	1.46	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	W	0.060	1.89	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	X	0.100	1.76	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.100 <sup>†</sup>	2.07	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.060	2.67	235.0	1880.0	2350.0	-10~+10	-10~+30	-10~+50	10	12	15
68	V	0.100	1.45	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
68	W	0.100 <sup>†</sup>	1.46	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
68	W	0.060	1.89	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
68	X	0.100 <sup>†</sup>	1.76	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
68	X	0.060	2.27	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.100 <sup>†</sup>	2.07	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.060	2.67	340.0	2720.0	3400.0	-10~+10	-10~+30	-10~+50	10	12	15
75	W	0.100 <sup>†</sup>	1.76	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
75	W	0.060	2.27	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
75	X	0.100 <sup>†</sup>	1.76	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 50V												
75	X	0.060	2.27	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
100	W	0.100	1.46	500.0	4000.0	5000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	X	0.100*	2.27	500.0	4000.0	5000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	X	0.060	2.07	500.0	4000.0	5000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.100*	2.67	500.0	4000.0	5000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.060	1.96	500.0	4000.0	5000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	S	0.100	1.76	500.0	6000.0	5000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	X	0.100	2.07	750.0	6000.0	7500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	T	0.100*	2.67	750.0	6000.0	7500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	T	0.060	2.08	750.0	6000.0	7500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	Y	0.100	1.88	750.0	8800.0	7500.0	-10~+10	-10~+30	-10~+50	10	12	15
220	Z	0.100	2.07	1100.0	8800.0	11000.0	-10~+10	-10~+30	-10~+50	10	12	15
220	T	0.100	2.07	1100.0	8800.0	11000.0	-10~+10	-10~+30	-10~+50	10	12	15
220	Y	0.100	2.07	1100.0	13200.0	11000.0	-10~+10	-10~+30	-10~+50	10	12	15
330	T	0.1	2.08	1650.0	13200.0	16500.0	-10~+10	-10~+30	-10~+50	10	12	15
330	Y	0.1	2.27	1650.0	3000.0	16500.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 63V												
0.47	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	C	0.200*	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	C	0.120	0.98	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.200*	0.75	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.120	0.98	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.200*	0.75	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.120	0.98	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.120*	1.14	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.100	1.25	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.200*	0.75	9.5	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.120	0.98	9.5	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	D	0.120*	1.14	9.5	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	D	0.100	1.25	9.5	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	E	0.150	1.08	9.4	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.200*	0.75	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.120	0.98	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.120*	1.14	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.100	1.25	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
2.2	E	0.150	1.08	13.8	110.8	138.6	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.200*	0.75	20.8	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.120	0.98	20.8	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 63V												
3.3	D	0.120*	1.14	20.8	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15
3.3	D	0.100	1.25	20.8	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15
3.3	E	0.120	1.20	20.7	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.120†	1.14	29.6	236.9	296.1	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.100	1.25	29.6	236.9	296.1	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.120†	1.20	29.6	236.9	296.1	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.080	1.47	29.6	236.9	296.1	-10~+10	-10~+30	-10~+50	10	12	15
4.7	V	0.120	1.32	29.6	236.8	296.1	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.120†	1.14	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.100	1.25	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.120†	1.20	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.080	1.47	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
6.8	V	0.120	1.32	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.120†	1.14	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.100	1.25	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.120†	1.20	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.080	1.47	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.120†	1.32	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.080	1.62	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	W	0.120	1.33	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
10	S	0.120	1.79	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.120†	1.20	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.080	1.47	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
15	V	0.120†	1.32	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
15	V	0.080	1.62	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
15	W	0.120†	1.33	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
15	W	0.080	1.63	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.120†	1.20	113.4	907.2	1134.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.080	1.47	113.4	907.2	1134.0	-10~+10	-10~+30	-10~+50	10	12	15
18	V	0.120†	1.32	113.4	907.2	1134.0	-10~+10	-10~+30	-10~+50	10	12	15
18	V	0.080	1.62	113.4	907.2	1134.0	-10~+10	-10~+30	-10~+50	10	12	15
18	W	0.120†	1.33	113.4	907.2	1134.0	-10~+10	-10~+30	-10~+50	10	12	15
18	W	0.080	1.63	113.4	907.2	1134.0	-10~+10	-10~+30	-10~+50	10	12	15
22	V	0.120	1.32	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.120†	1.33	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.080	1.63	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
22	X	0.120	1.62	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.120†	1.89	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.080	2.31	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
33	W	0.120†	1.33	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
33	W	0.080	1.63	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
33	X	0.120	1.62	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15

Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor



Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 63V												
33	T	0.120*	1.89	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
33	T	0.080	2.31	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
47	V	0.120	1.32	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
47	W	0.120	1.33	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
47	X	0.120	1.62	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
47	G	0.120	1.64	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.120*	1.89	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.080	2.31	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
68	W	0.120	1.33	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
68	X	0.090	1.86	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
68	G	0.120	1.64	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.120*	1.89	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.080	2.31	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
75	W	0.120	1.33	472.5	3780.0	4725.0	-10~+10	-10~+30	-10~+50	10	12	15
100	X	0.100	1.76	630.0	5040.0	6300.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.120*	1.89	630.0	5040.0	6300.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.080	2.31	630.0	5040.0	6300.0	-10~+10	-10~+30	-10~+50	10	12	15
100	Y	0.120	1.90	630.0	5040.0	6300.0	-10~+10	-10~+30	-10~+50	10	12	15
150	X	0.100	1.76	945.0	7560.0	9450.0	-10~+10	-10~+30	-10~+50	10	12	15
150	T	0.100	2.07	945.0	7560.0	9450.0	-10~+10	-10~+30	-10~+50	10	12	15
220	Z	0.100	1.88	1386.0	11088.0	13860.0	-10~+10	-10~+30	-10~+50	10	12	15
220	T	0.100	2.07	1386.0	11088.0	13860.0	-10~+10	-10~+30	-10~+50	10	12	15
220	Y	0.100	2.08	1386.0	11088.0	13860.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 75V												
0.47	B	0.350	0.50	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	C	0.250	0.67	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	B	0.350	0.50	5.1	40.8	51.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.250	0.67	5.1	40.8	51.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.250*	0.67	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.120	0.98	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.120*	1.14	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.100	1.25	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1	E	0.150	1.08	7.5	60.0	75.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.250*	0.67	11.2	90.0	112.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	C	0.120	0.98	11.2	90.0	112.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	D	0.120*	1.14	11.2	90.0	112.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	D	0.100	1.25	11.2	90.0	112.5	-10~+10	-10~+30	-10~+50	10	12	15
1.5	E	0.150	1.08	11.2	90.0	112.5	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.250*	0.67	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 75V												
2.2	C	0.120	0.98	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.120*	1.14	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	D	0.100	1.25	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	E	0.150	1.08	16.5	132.0	165.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	D	0.120	1.14	24.7	198.0	247.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	E	0.120*	1.20	24.7	198.0	247.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	E	0.100	1.31	24.7	198.0	247.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	V	0.150	1.19	24.7	198.0	247.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	W	0.150	1.19	24.7	198.0	247.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.120	1.14	35.2	282.0	352.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.120*	1.20	35.2	282.0	352.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.100	1.31	35.2	282.0	352.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	V	0.120*	1.32	35.2	282.0	352.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	V	0.100	1.45	35.2	282.0	352.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	W	0.150	1.19	35.2	282.0	352.5	-10~+10	-10~+30	-10~+50	10	12	15
6.8	D	0.120	1.14	51.0	408.0	510.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.120*	1.20	51.0	408.0	510.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.100	1.31	51.0	408.0	510.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	V	0.120*	1.32	51.0	408.0	510.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	V	0.100	1.45	51.0	408.0	510.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	W	0.150	1.19	51.0	408.0	510.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.120*	1.20	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.100	1.31	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.120*	1.32	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.100	1.45	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	W	0.120*	1.33	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	W	0.100	1.46	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	S	0.150	1.60	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
10	T	0.120	1.89	75.0	600.0	750.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.120	1.14	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	E	0.120	1.20	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	V	0.120	1.32	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	W	0.120*	1.33	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	W	0.100	1.46	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	X	0.120	1.61	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	T	0.120*	1.89	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
15	T	0.100	2.07	112.5	900.0	1125.0	-10~+10	-10~+30	-10~+50	10	12	15
18	E	0.120	1.20	135.0	1080.0	1350.0	-10~+10	-10~+30	-10~+50	10	12	15
18	V	0.120	1.32	135.0	1080.0	1350.0	-10~+10	-10~+30	-10~+50	10	12	15
18	W	0.120	1.33	135.0	1080.0	1350.0	-10~+10	-10~+30	-10~+50	10	12	15
18	S	0.150	1.60	135.0	1080.0	1350.0	-10~+10	-10~+30	-10~+50	10	12	15
18	T	0.120*	1.89	135.0	1080.0	1350.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 75V												
18	T	0.100	2.07	135.0	1080.0	1350.0	-10~+10	-10~+30	-10~+50	10	12	15
22	V	0.200	1.02	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.120*	1.33	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.100	1.46	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
22	X	0.120*	1.61	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
22	X	0.100	1.76	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.120*	1.89	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.100	2.07	165.0	1320.0	1650.0	-10~+10	-10~+30	-10~+50	10	12	15
33	W	0.120	1.33	247.5	1980.0	2475.0	-10~+10	-10~+30	-10~+50	10	12	15
33	X	0.120	1.61	247.5	1980.0	2475.0	-10~+10	-10~+30	-10~+50	10	12	15
33	T	0.120*	1.89	247.5	1980.0	2475.0	-10~+10	-10~+30	-10~+50	10	12	15
33	T	0.100	2.07	247.5	1980.0	2475.0	-10~+10	-10~+30	-10~+50	10	12	15
47	X	0.120	1.61	352.5	2820.0	3525.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.120	1.89	352.5	2820.0	3525.0	-10~+10	-10~+30	-10~+50	10	12	15
47	Y	0.120	1.90	352.5	2820.0	3525.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.120	1.89	510.0	4080.0	5100.0	-10~+10	-10~+30	-10~+50	10	12	15
68	Y	0.120	1.90	510.0	4080.0	5100.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.120	1.89	750.0	6000.0	7500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	Y	0.120	1.90	1125.0	9000.0	11250.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 100V												
0.1	B	0.700	0.36	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.1	C	0.600	0.44	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	B	0.400	0.47	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.47	C	0.300	0.62	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	C	0.300	0.62	6.8	54.4	68.0	-10~+10	-10~+30	-10~+50	10	12	15
0.68	D	0.150	1.02	6.8	54.4	68.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.300*	0.62	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
1	C	0.150	0.87	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.150*	1.02	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
1	D	0.100	1.25	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
1	E	0.150	1.07	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	D	0.150	1.02	15.0	120.0	150.0	-10~+10	-10~+30	-10~+50	10	12	15
1.5	E	0.150	1.07	15.0	120.0	150.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	E	0.150	1.07	22.0	176.0	220.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	V	0.150*	1.18	22.0	176.0	220.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	V	0.100	1.45	22.0	176.0	220.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	V	0.150*	1.18	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	V	0.100	1.45	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	W	0.150*	1.19	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	W	0.100	1.46	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	V	0.150*	1.18	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	V	0.100	1.45	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μA)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 100V												
4.7	W	0.150*	1.19	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	W	0.100	1.46	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	V	0.150	1.18	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	W	0.150*	1.19	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	W	0.100	1.46	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	S	0.150	1.60	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
10	W	0.250	0.92	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
10	S	0.250*	1.24	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
10	S	0.150	1.60	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
10	T	0.250*	1.31	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
10	T	0.150	1.69	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
15	X	0.150	1.44	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
15	S	0.150	1.60	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
15	T	0.150	1.69	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
18	T	0.150	1.69	180.0	1440.0	1800.0	-10~+10	-10~+30	-10~+50	10	12	15
22	X	0.150	1.44	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.150*	1.69	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.100	2.07	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
22	Y	0.150	1.70	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
33	T	0.150	1.69	330.0	2640.0	3300.0	-10~+10	-10~+30	-10~+50	10	12	15
33	T	0.150	1.70	330.0	2640.0	3300.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.150	1.69	470.0	3760.0	4700.0	-10~+10	-10~+30	-10~+50	10	12	15
47	Y	0.150	1.70	470.0	3760.0	4700.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.150	1.69	680.0	5440.0	6800.0	-10~+10	-10~+30	-10~+50	10	12	15
68	Y	0.150	1.70	680.0	5440.0	6800.0	-10~+10	-10~+30	-10~+50	10	12	15
75	T	0.150	1.69	750.0	6000.0	7500.0	-10~+10	-10~+30	-10~+50	10	12	15
85	T	0.150	1.69	850.0	6800.0	8500.0	-10~+10	-10~+30	-10~+50	10	12	15
100	T	0.150	1.69	1000.0	8000.0	10000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	Y	0.150	1.70	1000.0	8000.0	10000.0	-10~+10	-10~+30	-10~+50	10	12	15
rated voltage (U <sub>R</sub> ) 125V												
3.3	D	0.150	1.02	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	D	0.150	1.02	58.7	470.0	587.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	E	0.150	1.07	58.7	470.0	587.5	-10~+10	-10~+30	-10~+50	10	12	15
6.8	E	0.150	1.07	85.0	680.0	850.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	V	0.150	1.18	85.0	680.0	850.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	W	0.150	1.19	85.0	680.0	850.0	-10~+10	-10~+30	-10~+50	10	12	15
10	E	0.250	0.83	125.0	1000.0	1250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	V	0.250	0.92	125.0	1000.0	1250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	W	0.250	0.93	125.0	1000.0	1250.0	-10~+10	-10~+30	-10~+50	10	12	15
15	W	0.250	0.93	187.5	1500.0	1875.0	-10~+10	-10~+30	-10~+50	10	12	15



Table 2 Rated voltage, ripple current, nominal capacitance, equivalent series resistance (ESR), shell code, and high and low temperature characteristics of the capacitor

Nominal electricity capacity C <sub>R</sub> (μF)	shell Number	ESR max 100KHz (Ω)	AC ripple current max 100KHz (A)	Leak current max (μ A)			Capacity change range of (%)			Loss angle is tangent to max (%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
										+25°C		
rated voltage (U <sub>R</sub> ) 125V												
15	X	0.250	1.12	187.5	1500.0	1875.0	-10~+10	-10~+30	-10~+50	10	12	15
18	W	0.250	0.93	225.0	1800.0	2250.0	-10~+10	-10~+30	-10~+50	10	12	15
18	X	0.250	1.12	225.0	1800.0	2250.0	-10~+10	-10~+30	-10~+50	10	12	15
22	W	0.300	0.85	275.0	2200.0	2750.0	-10~+10	-10~+30	-10~+50	10	12	15
22	X	0.250	1.12	275.0	2200.0	2750.0	-10~+10	-10~+30	-10~+50	10	12	15
22	T	0.200	1.47	275.0	2200.0	2750.0	-10~+10	-10~+30	-10~+50	10	12	15
33	T	0.200	1.47	412.5	3300.0	4125.0	-10~+10	-10~+30	-10~+50	10	12	15
33	Y	0.200	1.48	412.5	3300.0	4125.0	-10~+10	-10~+30	-10~+50	10	12	15
47	T	0.300	1.20	587.5	4700.0	5875.0	-10~+10	-10~+30	-10~+50	10	12	15
47	Y	0.300	1.21	587.5	4700.0	5875.0	-10~+10	-10~+30	-10~+50	10	12	15
68	T	0.200	1.47	850.0	6800.0	8500.0	-10~+10	-10~+30	-10~+50	10	12	15
68	Y	0.200	1.48	850.0	6800.0	8500.0	-10~+10	-10~+30	-10~+50	10	12	15

**PART NUMBER EXAMPLE**

