KZ Series

Extra Lower Impedance 极低阻抗品

- Extra low impedance with temperature range -55℃ to +105℃ and load life of 1000~3000 hours.
  工作温度范围：-55℃ 至 +105℃ ， 负荷寿命：2000～3000 小时
- Impedance 40～60% less than LZ series.
  阻抗比LZ系列低40～60%
- Lead-free reflow soldering is available subject to customer's request
  无铅回流焊接可按照客户的要求

■主要技术性能 Specification

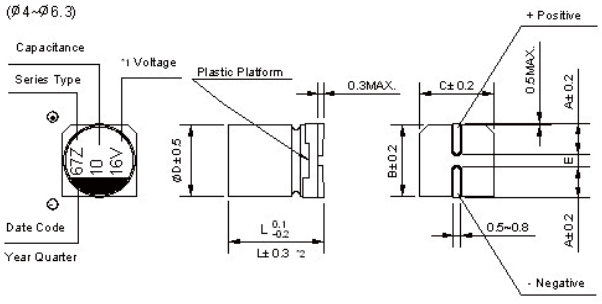
项目 Item	特性 Performance Characteristics
使用温度范围 Operating temperature rang	-55 ~ +105℃
额定电压范围 Rated voltage range	6.3 ~ 50 V
静电容量范围 Capacitance Range	4.7~6800 μF
静电容量允许偏差Capacitance Tolerance	±20% at 120 Hz, 20℃
漏电流 Leakage current	For Φ4～Φ10,after 2 minutes's application of rated voltage,leakagecurrent is not more than 0.01CV or 3(μA),whichever is greater.For Φ12.5～Φ16,after 1 minutes application of rated voltage,leakage current is not more than 0.03CV or 4(μA), whichever is greater. Φ4～Φ10; 施加额定工作电压2分钟，LC≤0. 01CV或3(μA),取较大值； Φ12.5～Φ16; 施加额定工作电压1分钟，LC≤0. 03CV或4(μA),取较大值。
损耗角正切值 Tan δ	Measurement frequency 测试频率: 120Hz,Temperature 温度:20℃

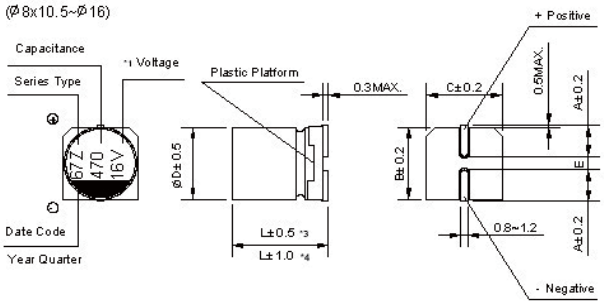
Rated voltage(V.DC) 额定工作电压		6.3	10	16	25	35	50
Tan δ 损耗角正切(max)	Φ4~Φ10	0.22	0.19	0.16	0.14	0.12	0.12
	Φ12.5~Φ16	0.26	0.22	0.18	0.16	0.14	0.12

低温特性 Stability at Low Temperature	Measurement frequency 测试频率: 120Hz						
Rated voltage(V.DC) 额定工作电压			6.3	10	16	25	35	50
Impedance ratio 阻抗比 XT/Z20(max)	Φ4~Φ10	Z(-25℃)/Z(20℃)	3	2	2	2	2	2
		Z(-55℃)/Z(20℃)	5	4	4	3	3	3
	Φ12.5~Φ16	Z(-25℃)/Z(20℃)	3	2	2	2	2	2
		Z(-55℃)/Z(20℃)	10	8	6	4	3	3

高温负荷特性 Load Life	After 5000 hours (3000 hours for Φ4~Φ6.3 and Φ8×6.2) application of rated voltage at 105℃, capacitions meet the characteristics requirements listed at right. 在105℃环境中施加额定工作电压5000小时后，电容器的特性符合右表的要求。	Capacitance Change 静电容量变化率	Within ±25% of the initial value 初始值±25%以内
		Tan δ 损耗角正切	200% or less of the initial specified value 不大于规范值的±200%
		Leakage Current 漏电流	Initial specified value or less不大于规范值
高温储存特性 Shelf Life	After leaving capacitors under no load at 105℃ for 1000 hours, they meet the specified value for load life characteristics listed above. 在105℃环境中无负荷放置1000小时后，电容器的特性符合高温负荷特性中所列的规定值。		
耐焊接热特性 Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics requirements listed at right.经过回流焊并冷却至室温后，电容器的特性符合右表的要求。	Capacitance Change 静电容量变化率	Within ±10% of the initial value 初始值±10%以内
		Tan δ 损耗角正切	Initial specified value or less不大于规范值
		Leakage Current 漏电流	Initial specified value or less不大于规范值
适用标准 Applicable Standards	IEC-60384-18		

■外形图及尺寸图 Case size table





*1 Voltage mark [6V] represents 6.3V for Φ4～Φ10; *2 [L±0.5] is applicable to Φ8×10.5～Φ10; *3 [L±1.0] is applicable to Φ12.5～Φ16.Re: Date code and series type — 1st digit for Year; 2nd digit for Quarter, 4 quarter codes in one year are 1, 4, 7, O; 3rd character for Series; KZ Series = Z.

KZ Series

(mm)

DXL	Φ4X5.8	Φ5X8	Φ6.3X5.8 / 7.7	Φ8X6.2	Φ8X10.5	Φ10X10.5 / 13.5	Φ12.5X13.5 / 16	Φ16X16.5 / 21.5
A	1.8	2.1	2.4	3.3	2.9	3.2	4.7	5.5
B	4.3	5.3	6.6	8.3	8.3	10.3	13.0	17.0
C	4.3	5.3	6.6	8.3	8.3	10.3	13.0	17.0
E±0.2	1.0	1.3	2.2	2.2	3.1	4.4	4.4	6.7
L	5.4	5.4	5.4 / 7.7	6.2	10.5	10.5 / 13.5	13.5 / 16	16.5 / 21.5

■ 规格尺寸及最大允许纹波电流及ESR值 Standard size Maximum permissible ripple current&ESR

容量 Cap(uF) \ WV电压		6.3			10			16		
		0J			1A			1C		
10	100							4×5.4	1.8	80
15	150							4×5.4	1.8	80
22	220	4×5.4	1.8	80	4×5.4	1.8	80	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)
33	330	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)
47	470	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)
56	560	5×5.4	0.76	150	6.3×5.4	0.44	230	6.3×5.4	0.44	230
68	680	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4	0.44	230	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)
100	101	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)
150	151	6.3×5.4	0.44	230	6.3×7.7	0.34	280	6.3×7.7	0.34	280
220	221	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (8×6.2)	0.34 (0.44)	280 (230)	8×10.5 (6.3×7.7)	0.17 (0.34)	450 (280)
330	331	6.3×7.7 (8×6.2)	0.34 (0.44)	280 (280)	8×10.5	0.17	450	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)
470	471	8×10.5	0.17	450	8×10.5	0.17	450	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)
680	681	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)	10×10.5	0.09	670	10×13.5 (10×10.5)	0.075 (0.09)	800 (670)
1000	102	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)	10×10.5	0.09	670	16×16.5 (12.5×16) (12.5×13.5)	0.005 (0.06) (0.065)	1350 (1050) (900)
1500	152	10×13.5 (10×10.5)	0.075 (0.09)	800 (670)	12.5×13.5	0.065	900	16×16.5	0.055	1350
2200	222	12.5×13.5	0.065	900	12.5×16	0.060	1050	16×16.5	0.055	1350
3300	332	12.5×16	0.060	1050	16×16.5	0.055	1350	16×21.5	0.040	1650
4700	472	16×16.5	0.055	1350	16×21.5	0.040	1650			Ripples Current
6800	682	16×21.5	0.040	1650					Case Size	

Maximum Impedance (Ω) at 20℃ 100kHz, Ripple Current (mA rms) at 105℃ 100kHz

KZ Series

■ 规格尺寸及最大允许纹波电流及阻抗值 Standard size & Maximum permissible ripple current&Impedance

容量 Cap(uF) \ WV电压		25			35			50		
		1E			1V			1H		
4.7	4R7				4×5.4	1.8	80	5×5.4 (4×5.4)	0.76 (0.18)	150 (80)
10	100	4×5.4	1.8	80	5×5.4 (4×5.4)	0.76 (0.18)	150 (80)	6.3×5.4 (5×5.4)	0.44 (1.76)	230 (150)
15	150	5×5.4	0.76	150	5×5.4	0.76	150	6.3×5.4	0.44	230
22	220	6.3×5.8 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4 (5×5.4)	0.44 (1.76)	230 (150)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)
33	330	6.3×5.8 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4 (5×5.4)	0.44 (1.76)	230 (150)	6.3×7.7 (8×6.2)	0.34 (0.34)	280 (280)
47	470	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (8×6.2)	0.34 (0.34)	280 (280)
56	560	6.3×7.7 (6.3×5.4)	0.34 (0.44)	280 (230)	6.3×7.7	0.34	280	8×10.5 (6.3×7.7)	0.17 (0.34)	450 (280)
68	680	6.3×7.7	0.34	280	6.3×7.7	0.34	280	8×10.5	0.34	350
100	101	6.3×7.7 (6.3×5.4)	0.34 (0.44)	280 (280)	8×10.5	0.17	450	10×10.5 (8×10.5)	0.18 (0.34)	670 (350)
150	151	8×10.5 (6.3×7.7)	0.17 (0.34)	450 (280)	10×10.5	0.09	670	10×10.5	0.18	670
220	221	8×10.5	0.17	450	10×10.5	0.09	670	10×13.5 (10×10.5)	0.075 (0.9)	800 (670)
330	331	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)	10×10.5	0.09	670	12.5×13.5	0.065	900
470	471	10×13.5 (10×10.5)	0.075 (0.9)	800 (670)	12.5×13.5 (10×13.5)	0.065 (0.075)	900 (800)	16×16.5 (12.5×16)	0.055 (0.060)	1350 (1050)
100	681	12.5×13.5	0.065	900	12.5×16 (12.5×13.5)	0.065 (0.075)	1050 (900)	16×21.5	0.040	1650
150	102	16×16.5 (12.5×16)	0.055 (0.060)	1350 (1050)	16×16.5	0.055	1350			
220	152	16×16.5	0.055	1350	16×21.5	0.040	1650			
330	222	16×21.5	0.040	1650				Case Size	Impedance	Ripples Current

Maximum Impedance (Ω) at 20℃ 100kHz, Ripple Current (mA rms) at 105℃ 100kHz

■ 纹波电流频率补偿系数 Frequency Coefficient Factor of Rated Ripple Current

Frequency / Capacitance(uF)		50Hz	120Hz	300Hz	1kHz	10kHz~
Φ4~Φ10	4.7~68	0.35	0.50	0.64	0.83	1.00
	100~1500	0.40	0.55	0.70	0.85	1.00
Φ12.5~Φ16	~680	0.45	0.65	0.80	0.90	1.00
	1000~6800	0.65	0.85	0.95	1.00	1.00

KZ Parts List (1)

Size	Part No.	R.V. (V.DC)	Cap. (μF)	Tangent of Loss Angle (tanδ)	Leakage Current (μA)	ESR (Ω) (20℃, 120kHz)	Ripple Current (mA rms.) (120kHz,105℃)
D × L				max.	max.	max.	max.
4×5.4	6.3KZ220MLC4×5.4EC	6.3	22	0.22	3.0	1.8	80
4×5.4	6.3KZ330MLC4×5.4EC	6.3	33	0.22	3.0	1.8	80
5×5.4	6.3KZ470MLC5×5.4EC	6.3	47	0.22	3.0	0.76	150
4×5.4	6.3KZ407MLC4×5.4EC	6.3	47	0.22	3.0	1.8	80
5×5.4	6.3KZ560MLC5×5.4EC	6.3	56	0.22	3.5	0.76	150
5×5.4	6.3KZ680MLC5×5.4EC	6.3	68	0.22	4.3	0.76	150
6.3×5.4	6.3KZ680MLC6.3×5.4EC	6.3	68	0.22	4.3	0.76	150
6.3×5.4	6.3KZ101MLC6.3×5.4EC	6.3	100	0.22	6.3	0.44	230
6.3×5.4	6.3KZ101MLC6.3×5.4EC	6.3	100	0.22	6.3	0.76	150
6.3×7.7	6.3KZ151MLC6.3×7.7EC	6.3	150	0.22	9.5	0.44	230
8×6.2	6.3KZ221MLC8×6.2EC	6.3	220	0.22	13.9	0.44	230
6.3×7.7	6.3KZ221MLC6.3×7.7EC	6.3	220	0.22	13.9	0.44	230
8×6.2	6.3KZ221MLC8×6.2EC	6.3	220	0.22	13.9	0.34	280
8×10.5	6.3KZ331MLC8×10.5EC	6.3	330	0.22	20.8	0.34	280
8×10.5	6.3KZ331MLC8×10.5EC	6.3	330	0.22	20.8	0.34	280
10×10.5	6.3KZ471MLC10×10.5EC	6.3	470	0.22	29.6	0.17	450
8×10.5	6.3KZ681MLC8×10.5EC	6.3	680	0.22	42.8	0.17	450
10×10.5	6.3KZ681MLC10×10.5EC	6.3	680	0.22	42.8	0.09	670
8×10.5	6.3KZ102MLC8×10.5EC	6.3	1000	0.22	63.0	0.17	450
10×10.5	6.3KZ102MLC10×10.5EC	6.3	1000	0.22	63.0	0.09	670
10×10.5	6.3KZ152MLC10×10.5EC	6.3	1500	0.22	94.5	0.09	670
10×13.5	6.3KZ152MLC10×13.5EC	6.3	1500	0.22	94.5	0.075	800
12.5×13.5	6.3KZ222MLC12.5×13.5EC	6.3	2200	0.26	415.8	0.065	900
12.5×16	6.3KZ332MLC12.5×16EC	6.3	3300	0.26	623.7	0.06	1050
16×16.5	6.3KZ472MLC16×16.5EC	6.3	4700	0.26	888.3	0.055	1350
16×21.5	6.3KZ682MLC16×21.5EC	6.3	6800	0.26	1285.2	0.040	1650
4×5.4	10KZ220MLC4×5.4EC	10	22	0.19	3.0	1.8	80
4×5.4	10KZ330MLC4×5.4EC	10	33	0.19	3.3	1.8	80
5×5.4	10KZ330MLC5×5.4EC	10	33	0.19	3.3	0.76	150
5×5.4	10KZ470MLC5×5.4EC	10	47	0.19	4.7	0.76	150
6.3×5.4	10KZ470MLC6.3×5.4EC	10	47	0.19	4.7	0.44	230
6.3×5.4	10KZ560MLC6.3×5.4EC	10	56	0.19	5.6	0.44	230
6.3×5.4	10KZ680MLC6.3×5.4EC	10	68	0.19	6.8	0.44	230
6.3×5.4	10KZ101MLC6.3×5.4EC	10	100	0.19	10.0	0.44	230
6.3×7.7	10KZ101MLC6.3×7.7EC	10	100	0.19	10.0	0.34	280
8×6.2	10KZ101MLC8×6.2EC	10	100	0.19	10.0	0.34	280
6.3×7.7	10KZ151MLC6.3×7.7EC	10	150	0.19	15.0	0.34	280
8×6.2	10KZ151MLC8×6.2EC	10	150	0.19	15.0	0.34	280
6.3×7.7	10KZ221MLC6.3×7.7EC	10	220	0.19	22.0	0.34	280
8×10.5	6.3KZ331MLC8×10.5EC	10	330	0.19	33.0	0.17	450
8×10.5	6.3KZ471MLC8×10.5EC	10	470	0.19	47.0	0.17	450
10×10.5	6.3KZ681MLC10×10.5EC	10	680	0.19	68.0	0.09	670
10×10.5	6.3KZ102MLC10×10.5EC	10	1000	0.19	100.0	0.09	670
12.5×13.5	6.3KZ152MLC12.5×13.5EC	10	1500	0.22	450.0	0.065	900
12.5×16	6.3KZ222MLC12.5×16EC	10	2200	0.22	660.0	0.06	1050
16×16.5	6.3KZ332MLC16×16.5EC	10	3300	0.22	990.0	0.06	1350

KZ Parts List (2)

Size	Part No.	R.V. (V.DC)	Cap. (μF)	Tangent of Loss Angle (tan δ)	Leakage Current (μA)	ESR (Ω) (20℃, 120kHz)	Ripple Current (mA rms.) (120kHz,105℃)
D × L				max.	max.	max.	max.
16×21.5	10KZ472MLC16×21.5EC	10	4700	0.22	1410.0	0.040	1650
4×5.4	16KZ100MLC4×5.4EC	16	10	0.16	3.0	1.8	80
4×5.4	16KZ150MLC4×5.4EC	16	15	0.16	3.0	1.8	80
4×5.4	16KZ220MLC4×5.4EC	16	22	0.16	3.5	1.8	80
5×5.4	16KZ220MLC5×5.4EC	16	22	0.16	3.5	0.76	150
5×5.4	16KZ330MLC5×5.4EC	16	33	0.16	5.3	0.76	150
6.3×5.4	16KZ330MLC6.3×5.4EC	16	33	0.16	5.3	0.44	230
5×5.4	16KZ470MLC5×5.4EC	16	47	0.16	7.5	0.76	150
6.3×5.4	16KZ470MLC6.3×5.4EC	16	47	0.16	7.5	0.44	230
6.3×5.4	16KZ5960MLC6.3×5.4EC	16	56	0.16	9.0	0.44	150
6.3×5.4	16KZ680MLC6.3×5.4EC	16	68	0.16	10.9	0.44	230
6.3×7.7	16KZ680MLC6.3×7.7EC	16	68	0.16	10.9	0.34	230
8×6.2	16KZ680MLC8×6.2EC	16	68	0.16	10.9	0.34	230
6.3×5.4	16KZ101MLC6.3×5.4EC	16	100	0.16	16.0	0.44	280
6.3×7.7	16KZ101MLC6.3×7.7EC	16	100	0.16	16.0	0.34	280
8×6.2	16KZ101MLC8×6.2EC	16	100	0.16	16.0	0.34	280
6.3×7.7	16KZ151MLC6.3×7.7EC	16	150	0.16	24.0	0.34	280
6.3×7.7	16KZ221MLC6.3×7.7EC	16	220	0.16	35.2	0.34	280
8×10.5	16KZ221MLC8×10.5EC	16	220	0.16	35.2	0.17	450
8×10.5	16KZ331MLC8×10.5EC	16	330	0.16	52.8	0.17	450
10×10.5	16KZ331MLC10×10.5EC	16	330	0.16	52.8	0.09	670
8×10.5	16KZ471MLC8×10.5EC	16	470	0.16	75.2	0.17	450
10×10.5	16KZ471MLC10×10.5EC	16	470	0.16	75.2	0.09	670
10×10.5	16KZ681MLC10×10.5EC	16	680	0.16	108.8	0.09	670
10×13.5	16KZ681MLC10×13.5EC	16	680	0.16	108.8	0.075	800
12.5×13.5	16KZ102MLC12.5×13.5EC	16	1000	0.18	480.0	0.065	900
12.5×16	16KZ102MLC12.5×16EC	16	1000	0.18	480.0	0.06	1050
16×16.5	16KZ152MLC16×16.5EC	16	1000	0.18	480.0	0.055	1350
16×16.5	16KZ152MLC16×16.5EC	16	1500	0.18	720.0	0.055	1350
16×16.5	16KZ222MLC16×16.5EC	16	2200	0.18	1056.0	0.055	1350
16×21.5	16KZ332MLC16×21.5EC	16	3300	0.18	1584.0	0.040	1650
4×5.4	25KZ100MLC4×5.4EC	25	10	0.14	3.0	1.8	80
5×5.4	25KZ150MLC5×5.4EC	25	15	0.14	3.8	0.76	150
5×5.4	25KZ220MLC5×5.4EC	25	22	0.14	5.5	0.76	150
6.3×5.4	25KZ220MLC6.3×5.4EC	25	22	0.14	5.5	0.76	230
5×5.4	25KZ330MLC5×5.4EC	25	33	0.14	8.3	0.76	150
6.3×5.4	25KZ330MLC6.3×5.4EC	25	33	0.14	8.3	0.76	230
6.3×5.4	25KZ470MLC6.3×5.4EC	25	47	0.14	11.8	0.76	230
6.3×7.7	25KZ470MLC6.3×7.7EC	25	47	0.14	11.8	0.44	280
8×6.2	25KZ470MLC8×6.2EC	25	47	0.14	11.8	0.34	280
6.3×5.4	25KZ560MLC6.3×5.4EC	25	56	0.14	14.0	0.76	230
6.3×7.7	25KZ560MLC6.3×7.7EC	25	56	0.14	14.0	0.44	280
6.3×7.7	25KZ680MLC6.3×7.7EC	25	68	0.14	17.0	0.44	280
6.3×7.7	25KZ101MLC6.3×7.7EC	25	100	0.14	25.0	0.44	280
8×6.2	25KZ101MLC8×6.2EC	25	100	0.14	25.0	0.34	280

KZ Parts List (3)

Size	Part No.	R.V. (V.DC)	Cap. (μF)	Tangent of Loss Angle (tanδ)	Leakage Current (μA)	ESR (Ω (20℃, 120kHz)	Ripple Current (mA rms.) (120kHz,105℃)
D × L				max.	max.	max.	max.
6.3×7.7	25KZ151MLC6.3×7.7EC	25	150	0.14	37.5	0.34	280
8×10.5	25KZ151MLC8×10.5EC	25	150	0.14	37.5	0.17	450
8×10.5	25KZ221MLC8×10.5EC	25	220	0.14	55.0	0.17	450
8×10.5	25KZ331MLC8×10.5EC	25	330	0.14	82.5	0.17	450
10×10.5	25KZ331MLC10×10.5EC	25	330	0.14	82.5	0.09	670
10×10.5	25KZ471MLC10×10.5EC	25	470	0.14	117.5	0.09	670
10×13.5	25KZ471MLC10×13.5EC	25	470	0.14	117.5	0.075	800
12.5×13.5	25KZ681MLC12.5×13.5EC	25	680	0.16	510.0	0.065	900
12.5×16	25KZ102MLC12.5×16EC	25	1000	0.16	750.0	0.06	1050
16×16.5	25KZ102MLC16×16.5EC	25	1000	0.16	750.0	0.055	1350
16×16.5	25KZ152MLC16×16.5EC	25	1500	0.16	1125.0	0.055	1350
16×21.5	25KZ222MLC16×21.5EC	25	2200	0.16	1650.0	0.040	1650
4×5.4	35KZ4R7MLC4×5.4EC	35	4.7	0.12	3.0	1.8	80
4×5.4	35KZ100MLC4×5.4EC	35	10	0.12	3.5	1.8	80
5×5.4	35KZ100MLC5×5.4EC	35	10	0.12	3.5	0.76	150
5×5.4	35KZ150MLC5×5.4EC	35	15	0.12	5.3	0.76	150
5×5.4	35KZ220MLC5×5.4EC	35	22	0.12	7.7	0.76	150
6.3×5.4	35KZ220MLC6.3×5.4EC	35	22	0.12	7.7	0.44	230
6.3×5.4	35KZ330MLC6.3×5.4EC	35	33	0.12	11.6	0.44	230
8×6.2	35KZ330MLC8×6.2EC	35	33	0.12	11.6	0.34	280
6.3×5.4	35KZ470MLC6.3×5.4EC	35	47	0.12	16.5	0.44	230
6.3×7.7	35KZ470MLC6.3×7.7EC	35	47	0.12	16.5	0.34	280
8×6.2	35KZ470MLC6.3×7.7EC	35	47	0.12	16.5	0.34	280
6.3×7.7	35KZ560MLC8×6.2EC	35	56	0.12	19.6	0.34	280
6.3×7.7	35KZ680MLC6.3×7.7EC	35	68	0.12	23.8	0.34	280
8×10.5	35KZ101MLC6.3×7.7EC	35	100	0.12	35.0	0.17	450
10×10.5	35KZ151MLC8×10.5EC	35	150	0.12	52.5	0.09	670
10×10.5	35KZ221MLC10×10.5EC	35	220	0.12	77.0	0.09	670
10×10.5	35KZ331MLC10×10.5EC	35	330	0.12	115.5	0.09	670
10×13.5	35KZ471MLC10×13.5EC	35	470	0.12	164.5	0.075	800
12.5×13.5	35KZ471MLC12.5×13.5EC	35	470	0.14	493.5	0.065	900
12.5×13.5	35KZ681MLC12.5×13.5EC	35	680	0.14	714.0	0.065	900
12.5×16	35KZ681MLC12.5×16EC	35	680	0.14	714.0	0.06	1050
16×16.5	35KZ102MLC16×16.5EC	35	1000	0.14	1050.0	0.06	1350
16×21.5	35KZ152MLC16×21.5EC	35	1500	0.14	1575.0	0.040	1650
4×5.4	50KZ4R7MLC4×5.4EC	50	4.7	0.12	3.0	3.0	60
5×5.4	50KZ4R7MLC5×5.4EC	50	4.7	0.12	3.0	1.52	85
5×5.4	50KZ100MLC5×5.4EC	50	10	0.12	5.0	1.52	85
6.3×5.4	50KZ100MLC6.3×5.4EC	50	10	0.12	5.0	0.88	165
6.3×5.4	50KZ150MLC6.3×5.4EC	50	15	0.12	7.5	0.88	165
6.3×5.4	50KZ220MLC6.3×5.4EC	50	22	0.12	11.0	0.88	165
6.3×7.7	50KZ220MLC6.3×7.7EC	50	22	0.12	11.0	0.68	185
8×6.2	50KZ220MLC8×6.2EC	50	22	0.12	11.0	0.68	185
6.3×7.7	50KZ330MLC6.3×7.7EC	50	33	0.12	16.5	0.68	185
8×6.2	50KZ330MLC8×6.2EC	50	33	0.12	16.5	0.68	185
6.3×7.7	50KZ470MLC6.3×7.7EC	50	47	0.12	23.5	0.68	185

KZ Parts List (4)

Size	Part No.	R.V. (V.DC)	Cap. (μF)	Tangent of Loss Angle (tan δ)	Leakage Current (μA)	ESR (Ω (20℃, 120kHz)	Ripple Current (mA rms.) (120kHz,105℃)
D × L				max.	max.	max.	max.
8×6.2	35KZ330MLC8×6.2EC	50	47	0.12	23.5	0.68	185
6.3×7.7	25KZ151MLC6.3×7.7EC	50	56	0.12	28.0	0.68	185
8×10.5	25KZ151MLC8×10.5EC	50	56	0.12	28.0	0.34	350
8×10.5	25KZ221MLC8×10.5EC	50	68	0.12	34.0	0.34	350
8×10.5	25KZ331MLC8×10.5EC	50	100	0.12	50.0	0.34	350
10×10.5	25KZ331MLC10×10.5EC	50	100	0.12	50.0	0.18	670
10×10.5	25KZ471MLC10×10.5EC	50	150	0.12	75.0	0.18	670
10×10.5	25KZ471MLC10×10.5EC	50	220	0.12	110.0	0.18	670
10×13.5	25KZ471MLC10×13.5EC	50	220	0.12	110.0	0.16	750
12.5×13.5	25KZ681MLC12.5×13.5EC	50	330	0.12	495.0	0.14	800
12.5×16	25KZ102MLC12.5×16EC	50	470	0.12	705.0	0.12	900
16×16.5	25KZ102MLC16×16.5EC	50	470	0.12	750.0	0.10	1150
16×21.5	25KZ222MLC16×21.5EC	50	680	0.12	1020.0	0.08	1350