

KXS Series



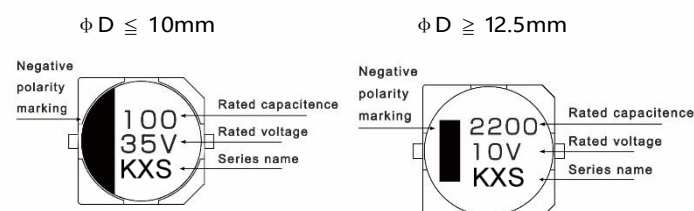
Features

- Endurance : 85°C 2000H
- Designed for reflow soldering
- Designed for surface mounting on high-density PCB
- RoHS 2.0 compliant
- 219 SVHC & REACH compliant

Marking color : Black

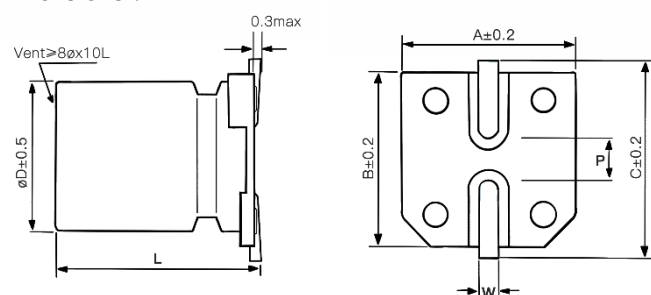
Specifications										
Category temp. range	-40°C to +85°C									
Capacitance tolerance	±20% (120 Hz / +20 °C)									
Leakage current	I ≤ 0.01 CV or 3 μA whichever is greater (after 2 minutes)									
Tan δ	Please see the attached characteristics list									
Characteristics at low temperature	Rated voltage (V)	6.3	10	16	25	35	50	63	100	Impedance ratio at 120 Hz
	Z (-25 °C) / Z (+20 °C)	4	4	3	2	2	2	2	2	
	Z (-40 °C) / Z (+20 °C)	8	6	4	3	3	3	3	3	
Endurance	After applying rated working voltage for 2000 hours at +85 °C ± 2 °C, and then being stabilized at +20 °C , capacitors shall meet the following limits.									
	Capacitance change	Within ±20% of the initial value Part Number with "*" : Within ±30% of the initial value								
	Dissipation factor (tan δ)	Less than 200% of the initial value Part Number with "*" : Less than 300% of the initial value								
	Leakage current	Within the initial limit								
Shelf life	After storage for 1000 h at +85 °C ± 2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in endurance.									
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.									
	Capacitance change	Within ±10% of the initial value								
	Dissipation factor (tan δ)	Within the initial limit								
	Leakage current	Within the initial limit								
Frequency correction factor for ripple current	Frequency	50Hz	120Hz	1kHz	10kHz					
	C ≤ 1000μF	0.7	1.0	1.2	1.3					
	C > 1000μF	0.8	1.0	1.1	1.2					

Marking :



Dimensions						Unit : mm
φ D	L	A	B	C	W	P±0.2
4	5.4±0.4	4.3	4.3	5.1	0.5~0.8	1.0
5	5.4±0.4	5.3	5.3	6.1	0.5~0.8	1.3
6.3	5.4±0.4	6.6	6.6	7.3	0.5~0.8	2.2
6.3	7.7±0.3	6.6	6.6	7.3	0.5~0.8	2.2
8	6.5±0.5	8.3	8.3	9.2	0.7~1.2	3.1
8	10.5±0.5	8.3	8.3	9.2	0.7~1.2	3.1
10	7.7±0.3	10.3	10.3	11.2	0.7~1.2	4.4
10	10.5±0.5	10.3	10.3	11.2	0.7~1.2	4.4
10	13±0.5	10.3	10.3	11.2	0.7~1.2	4.4
12.5	13.5±0.5	13.0	13.0	14.0	1.0~1.4	4.4
12.5	16±0.5	13.0	13.0	14.0	1.0~1.4	4.4

Dimensions :



Part Number System :

KXS series 16V 220μF ±20 % 6.3 φ X7.7L

KXS **1C** **221** **M** **0607**

Series name Rated voltage Capacitance Capacitance tolerance Case Size

Characteristics list							
Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification		Part Number③	Taping&Reel
		φD (mm)	L (mm)	Rated ripple current① (mA rms)	tan δ②		MPQ (pcs/reel)
6.3	22	4	5.4	26	0.30	KXS0J220M0405	2000
	33	4	5.4	31	0.30	KXS0J330M0405	2000
	47	4	5.4	34	0.30	XSOJ470M0405	2000
		5	5.4	46	0.30	KXS0J470M0505	1000
	68	6.3	5.4	71	0.30	KXS0J680M0605	1000
	100	5	5.4	47	0.30	KXS0J101M0505	1000
		6.3	5.4	71	0.30	KXS0J101M0605	1000
	220	6.3	5.4	74	0.30	KXS0J221M0605	1000
		6.3	7.7	124	0.30	KXS0J221M0607	1000
	330	6.3	7.7	124	0.30	KXS0J331M0607	1000
		8	6.5	190	0.30	KXS0J331M0806	1000
	470	6.3	7.7	124	0.30	KXS0J471M0607	1000
8		10.5	290	0.30	KXS0J471M0810	500	
1000	8	10.5	350	0.32	*KXS0J102M0810	500	
	10	10.5	430	0.32	KXS0J102M1010	500	
2200	12.5	13.5	700	0.42	KXS0J222M1313	200	
10	22	4	5.4	28	0.24	KXS1A220M0405	2000
	33	4	5.4	29	0.24	KXS1A330M0405	2000
		5	5.4	43	0.24	KXS1A330M0505	1000
	47	5	5.4	43	0.24	KXS1A470M0505	1000
	68	6.3	5.4	70	0.24	KXS1A680M0605	1000
	100	5	5.4	50	0.24	KXS1A101M0505	1000
		6.3	5.4	70	0.24	KXS1A101M0605	1000
	150	6.3	5.4	70	0.24	KXS1A151M0605	1000
	220	6.3	5.4	70	0.24	KXS1A221M0605	1000
		6.3	7.7	124	0.24	KXS1A221M0607	1000
	330	8	6.5	175	0.24	KXS1A221M0806	1000
		6.3	7.7	125	0.24	KXS1A331M0607	1000
	470	8	10.5	290	0.24	KXS1A331M0810	500
		10	7.7	290	0.24	KXS1A471M1007	500
	1000	10	10.5	400	0.26	KXS1A102M1010	500
	2200	12.5	13.5	750	0.38	KXS1A222M1313	200

① Rated ripple current (120Hz / +85°C) ② tan δ (120Hz / +20°C) ③ For plastic reel packaging , the Part Number is appended with "PR" at the end.

※ Please refer to the page of reflow conditions for reflow profile

Characteristics list

Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification		Part Number③	Taping&Reel
		øD (mm)	L (mm)	Rated ripple current① (mA rms)	tan δ②		MPQ (pcs/reel)
16	10	4	5.4	26	0.20	KXS1C100M0405	2000
	22	4	5.4	28	0.20	KXS1C220M0405	2000
		5	5.4	39	0.20	KXS1C220M0505	1000
	33	5	5.4	35	0.20	KXS1C330M0505	1000
	47	5	5.4	39	0.20	KXS1C470M0505	1000
		6.3	5.4	70	0.20	KXS1C470M0605	1000
	68	6.3	5.4	70	0.20	KXS1C680M0605	1000
	100	6.3	5.4	70	0.20	KXS1C101M0605	1000
		6.3	7.7	109	0.20	KXS1C101M0607	1000
		8	6.5	125	0.20	KXS1C101M0806	1000
	150	6.3	7.7	109	0.20	KXS1C151M0607	1000
		8	6.5	125	0.20	KXS1C151M0806	1000
	220	6.3	7.7	125	0.20	KXS1C221M0607	1000
		8	6.5	160	0.20	KXS1C221M0806	1000
		8	10.5	270	0.20	KXS1C221M0810	500
	330	8	10.5	270	0.20	KXS1C331M0810	500
		10	7.7	270	0.20	KXS1C331M1007	500
	470	8	10.5	270	0.20	KXS1C471M0810	500
10		10.5	360	0.20	KXS1C471M1010	500	
680	10	10.5	360	0.20	KXS1C681M1010	500	
1000	10	10.5	360	0.22	KXS1C102M1010	500	
	10	13	420	0.22	KXS1C102M1013	400	
	12.5	13.5	600	0.32	KXS1C102M1313	200	
25	4.7	4	5.4	22	0.18	KXS1E4R7M0405	2000
	10	4	5.4	22	0.18	KXS1E100M0405	2000
		5	5.4	28	0.18	KXS1E100M0505	1000
	22	5	5.4	35	0.18	KXS1E220M0505	1000
		6.3	5.4	55	0.18	KXS1E220M0605	1000
	33	5	5.4	42	0.18	KXS1E330M0505	1000
		6.3	5.4	65	0.18	KXS1E330M0605	1000
	47	6.3	5.4	70	0.18	KXS1E470M0605	1000
		8	6.5	80	0.18	KXS1E470M0806	1000
	68	6.3	5.4	70	0.18	*KXS1E680M0605	1000
	100	6.3	5.4	70	0.18	*KXS1E101M0605	1000
		6.3	7.7	100	0.18	KXS1E101M0607	1000
		8	6.5	100	0.18	KXS1E101M0806	1000
		8	10.5	180	0.18	KXS1E101M0810	500
	150	6.3	7.7	100	0.18	KXS1E151M0607	1000
		8	10.5	180	0.18	KXS1E151M0810	500
	220	8	10.5	175	0.18	KXS1E221M0810	500
		10	7.7	160	0.18	KXS1E221M1007	500
330	8	10.5	270	0.18	KXS1E331M0810	500	
	10	10.5	340	0.18	KXS1E331M1010	500	
470	10	10.5	380	0.18	KXS1E471M1010	500	
680	10	13	400	0.18	KXS1E681M1013	400	
1000	12.5	13.5	580	0.30	KXS1E102M1313	200	
35	4.7	4	5.4	22	0.16	KXS1V4R7M0405	2000
	10	4	5.4	22	0.16	KXS1V100M0405	2000
		5	5.4	30	0.16	KXS1V100M0505	1000
	22	5	5.4	36	0.16	KXS1V220M0505	1000
		6.3	5.4	59	0.16	KXS1V220M0605	1000
	33	6.3	5.4	60	0.16	KXS1V330M0605	1000
		8	6.5	85	0.16	KXS1V330M0806	1000
	47	6.3	5.4	70	0.16	KXS1V470M0605	1000
		6.3	7.7	98	0.16	KXS1V470M0607	1000
		8	6.5	105	0.16	KXS1V470M0806	1000
	68	6.3	7.7	98	0.16	KXS1V680M0607	1000
	100	6.3	7.7	132	0.16	KXS1V101M0607	1000
		8	10.5	140	0.16	KXS1V101M0810	500
		10	7.7	140	0.16	KXS1V101M1007	500
	150	8	10.5	185	0.16	KXS1V151M0810	500
	220	8	10.5	200	0.16	KXS1V221M0810	500
		10	10.5	310	0.16	KXS1V221M1010	500
	330	10	10.5	350	0.16	KXS1V331M1010	500
10		13	400	0.16	KXS1V331M1013	400	
470	10	13	400	0.16	KXS1V471M1013	400	
	12.5	13.5	520	0.22	KXS1V471M1313	200	
680	12.5	13.5	530	0.22	KXS1V681M1313	200	
50	1	4	5.4	10	0.14	KXS1H010M0405	2000
	2.2	4	5.4	14	0.14	KXS1H2R2M0405	2000
	3.3	4	5.4	16	0.14	KXS1H3R3M0405	2000
	4.7	4	5.4	18	0.14	KXS1H4R7M0405	2000
		5	5.4	23	0.14	KXS1H4R7M0505	1000
	10	5	5.4	27	0.14	KXS1H100M0505	1000
		6.3	5.4	35	0.14	KXS1H100M0605	1000
	22	6.3	5.4	40	0.14	KXS1H220M0605	1000
		6.3	7.7	65	0.14	KXS1H220M0607	1000
		8	6.5	70	0.14	KXS1H220M0806	1000
	33	6.3	7.7	75	0.14	KXS1H330M0607	1000
		8	6.5	90	0.14	KXS1H330M0806	1000
	47	6.3	7.7	75	0.14	KXS1H470M0607	1000
		8	6.5	90	0.14	KXS1H470M0806	1000
		8	10.5	120	0.14	KXS1H470M0810	500
	68	8	6.5	90	0.14	KXS1H680M0806	1000
		8	10.5	120	0.14	KXS1H680M0810	500
	100	8	10.5	190	0.14	KXS1H101M0810	500
10		10.5	230	0.14	KXS1H101M1010	500	
220	10	10.5	280	0.14	KXS1H221M1010	500	
	10	13	320	0.14	KXS1H221M1013	400	
330	10	13	320	0.14	KXS1H331M1013	400	
	12.5	13.5	520	0.18	KXS1H331M1313	200	
63	1	4	5.4	8	0.14	KXS1J010M0405	2000
	2.2	4	5.4	12	0.14	KXS1J2R2M0405	2000
	3.3	5	5.4	22	0.14	KXS1J3R3M0505	1000
		6.3	5.4	30	0.14	KXS1J3R3M0605	1000
	4.7	5	5.4	25	0.14	KXS1J4R7M0505	1000
		6.3	5.4	30	0.14	KXS1J4R7M0605	1000
	10	6.3	5.4	30	0.14	KXS1J100M0605	1000
		8	6.5	32	0.14	KXS1J100M0806	1000
	22	6.3	7.7	49	0.14	KXS1J220M0607	1000
		8	6.5	55	0.14	KXS1J220M0806	1000
		8	10.5	98	0.14	KXS1J220M0810	500
	33	8	10.5	98	0.14	KXS1J330M0810	500
		8	10.5	119	0.14	KXS1J470M0810	500
	47	10	10.5	160	0.14	KXS1J470M1010	500
		10	10.5	196	0.14	KXS1J101M1010	500
	100	10	13	210	0.14	KXS1J101M1013	400
		12.5	13.5	270	0.16	KXS1J101M1313	200
	220	12.5	13.5	470	0.16	KXS1J221M1313	200

Characteristics list

Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification		Part Number ^③	Taping&Reel
		øD (mm)	L (mm)	Rated ripple current ^① (mA rms)	tan δ ^②		MPQ (pcs/reel)
100	4.7	5	5.4	15	0.14	KXS2A4R7M0505	1000
		6.3	5.4	21	0.14	KXS2A4R7M0605	1000
		6.3	7.7	35	0.14	KXS2A4R7M0607	1000
	10	6.3	5.4	25	0.14	*KXS2A100M0605	1000
		6.3	7.7	35	0.14	KXS2A100M0607	1000
		8	6.5	50	0.14	KXS2A100M0806	1000
		8	10.5	90	0.14	KXS2A100M0810	500
	22	8	10.5	90	0.14	KXS2A220M0810	500
		10	10.5	120	0.14	KXS2A220M1010	500
	33	10	10.5	120	0.14	KXS2A330M1010	500
	47	10	10.5	120	0.14	KXS2A470M1010	500
		10	13	160	0.14	KXS2A470M1013	400
		12.5	13.5	250	0.16	KXS2A470M1313	200
	68	10	13	180	0.14	KXS2A680M1013	400
		12.5	13.5	300	0.16	KXS2A680M1313	200
	100	12.5	13.5	380	0.16	KXS2A101M1313	200

① Rated ripple current (120Hz / +85°C) ② tan δ (120Hz / +20°C) ③ For plastic reel packaging , the Part Number is appended with "PR" at the end.

※ Please refer to the page of reflow conditions for reflow profile