

## KZH Miniature Aluminum Electrolytic Capacitors

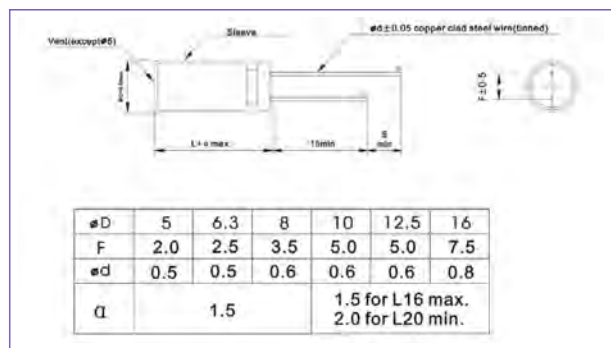
### 105°C Use, Ultra Low Impedance Capacitors, Series KZH.

Suitable for Application of Mother Board

Guaranteed 2000 hours at 105°C

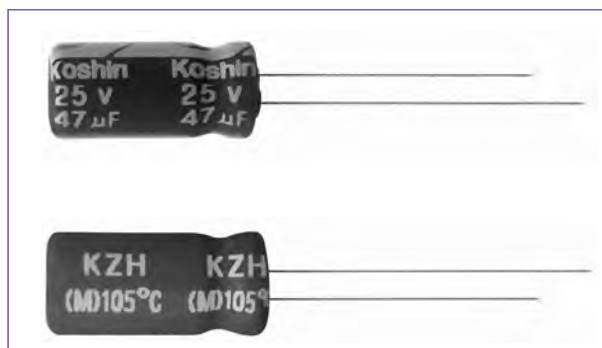
Outline Drawing

Unit: mm



Photo

ROSH



Marking color: black print on yellow sleeve

### Specifications

No.	Item	Performance								
1	Temperature range (°C)	-40 to +105								
2	Leakage current (μA)	less than 0.01CV or 3 whichever is larger (after two minutes) C: Capacitance(μF); V: Rated voltage(V) 20°C								
3	Capacitance tolerance (%)	±20 (20°C, 120Hz)								
4	Tangent of the loss angle (Tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	20°C 120Hz	
		Tan δ (max)	0.22	0.19	0.16	0.14	0.12	0.10		
0.02 is added to every 1000 μF increase over 1000 μF										
5	Low temperature characteristics	Rated voltage (V)	6.3	10	16	25	35	50	120Hz	
		Impedance ratio (max)	Z <sub>(-25°C)</sub> /Z <sub>(+20°C)</sub>	2	2	2	2	2		2
			Z <sub>(-40°C)</sub> /Z <sub>(+20°C)</sub>	3	3	3	3	3		3
6	Endurance (105°C) (Applied ripple current)	Test time	2000 hours							
		Leakage current	The initial specified value or less							
		Percentage of capacitance change	Within ±20% of initial value							
		Tangent of the loss angle	200% or less of the initial specified value							
7	Shelf life (105°C)	Test time	1000hours							
		Leakage current	The initial specified value or less							
		Percentage of capacitance change	Within ±20% of initial value							
		Tangent of the loss angle	200% or less of the initial specified value							
8	Applicable standards	JIS-C-5102 and JIS-C-5141								

### Coefficient of Frequency for Ripple Current

Capacitance (μF)	Frequency (Hz)				
	50 · 60	120	1K	10K	100K
CAP ≤ 100	0.60	0.70	0.85	0.95	1.00
100 < CAP ≤ 1000	0.65	0.75	0.90	0.98	1.00
1000 < CAP	0.75	0.80	0.95	0.98	1.00

### Coefficient of Temperature for Ripple Current

Temperature(°C)	70	85	105
Coefficient	1.78	1.40	1.00

## KZH Miniature Aluminum Electrolytic Capacitors

Dimension:  $\Phi$  DXL(mm)

Ripple Current: mA/rms at 100KHz, 105°C

### DIMENSION & PERMISSIBLE RIPPLE CURRENT

$\Phi$ DXL	V.DC Item	6.3V					10V					16V				
		$\mu$ F	Impedance ( $\Omega$ ,Max/100KHz)		Ripple Current (mA/rms,105°C )		$\mu$ F	Impedance ( $\Omega$ ,Max/100KHz)		Ripple Current (mA/rms,105°C )		$\mu$ F	Impedance ( $\Omega$ ,Max/100KHz)		Ripple Current (mA/rms,105°C )	
			20°C	-10°C	120Hz	100KHz		20°C	-10°C	120Hz	100KHz		20°C	-10°C	120Hz	100KHz
5X11	150	0.30	1.00	175	250	100	0.30	1.00	175	250	56	0.30	1.00	175	250	
6.3X11	330	0.13	0.41	284	405	220	0.13	0.41	284	405	120	0.13	0.41	284	405	
8X11.5	560	0.07	0.22	570	760	470	0.07	0.22	570	760	330	0.07	0.22	532	760	
8X15	820	0.056	0.17	746	995	680	0.056	0.17	746	995	470	0.056	0.17	746	995	
8X20	1200	0.041	0.13	1000	1250	1000	0.041	0.13	938	1250	680	0.041	0.13	938	1250	
10X12.5	1000	0.053	0.16	773	1030	680	0.053	0.16	773	1030	470	0.053	0.16	773	1030	
10X16	1200	0.038	0.12	1144	1430	1000	0.038	0.12	1144	1430	680	0.038	0.12	1073	1430	
10X20	1500	0.023	0.069	1456	1820	1200	0.023	0.069	1456	1820	1000	0.023	0.069	1365	1820	
10X25	2200	0.022	0.066	1720	2150	1500	0.022	0.066	1720	2150	1200	0.022	0.066	1720	2150	
12.5X20	3300	0.021	0.053	1888	2360	2200	0.021	0.053	1888	2360	1500	0.021	0.053	1888	2360	
12.5X25	3900	0.018	0.045	2216	2770	3300	0.018	0.045	2216	2770	2200	0.018	0.045	2216	2770	
12.5X30	4700	0.016	0.041	2632	3290	3900	0.016	0.041	2632	3290	2700	0.016	0.041	2632	3290	
12.5X35	5600	0.015	0.039	2720	3400	4700	0.015	0.039	2720	3400	3300	0.015	0.039	2720	3400	
16X25	6800	0.016	0.043	2768	3460	5600	0.016	0.043	2768	3460	3900	0.016	0.043	2768	3460	

Low Impedance Type

$\Phi$ DXL	V.DC Item	25V					35V					50V				
		$\mu$ F	Impedance ( $\Omega$ ,Max/100KHz)		Ripple Current (mA/rms,105°C )		$\mu$ F	Impedance ( $\Omega$ ,Max/100KHz)		Ripple Current (mA/rms,105°C )		$\mu$ F	Impedance ( $\Omega$ ,Max/100KHz)		Ripple Current (mA/rms,105°C )	
			20°C	-10°C	120Hz	100KHz		20°C	-10°C	120Hz	100KHz		20°C	-10°C	120Hz	100KHz
5X11	47	0.30	1.00	175	250	33	0.30	1.00	138	250	22	0.34	1.18	131	238	
6.3X11	100	0.13	0.41	284	405	56	0.13	0.41	284	405	56	0.14	0.50	270	385	
8X11.5	220	0.07	0.22	532	760	150	0.07	0.22	532	760	100	0.074	0.22	507	724	
8X15	330	0.056	0.17	697	995	220	0.056	0.17	697	995	120	0.061	0.18	665	950	
8X20	470	0.041	0.13	938	1250	270	0.041	0.13	875	1250	180	0.046	0.14	833	1190	
10X12.5	330	0.053	0.16	721	1030	220	0.053	0.16	721	1030	150	0.061	0.18	685	979	
10X16	470	0.038	0.12	1073	1430	330	0.038	0.12	1001	1430	220	0.042	0.12	959	1370	
10X20	680	0.023	0.069	1365	1820	470	0.023	0.069	1365	1820	270	0.030	0.09	1106	1580	
10X25	820	0.022	0.066	1613	2150	560	0.022	0.066	1613	2150	330	0.028	0.085	1309	1870	
12.5X20	1000	0.021	0.053	1770	2360	680	0.021	0.053	1770	2360	470	0.027	0.068	1538	2050	
12.5X25	1500	0.018	0.045	2216	2770	1000	0.018	0.045	2078	2770	560	0.023	0.059	1808	2410	
12.5X30	1800	0.016	0.041	2632	3290	1200	0.016	0.041	2632	3290	680	0.021	0.052	2145	2860	
12.5X35	2200	0.015	0.039	2720	3400	1500	0.015	0.039	2720	3400	820	0.019	0.051	2220	2960	
16X25	2700	0.016	0.043	2768	3460	1800	0.016	0.043	2768	3460	1000	0.021	0.056	2258	3010	