

### 105°C Use, High Ripple Current, Low Impedance, Long Life Capacitors, Series KLW.

High Ripple Current, Low Impedance

Long Life 4,000~10,000hours, 105°C; 2000 hours at 130°C

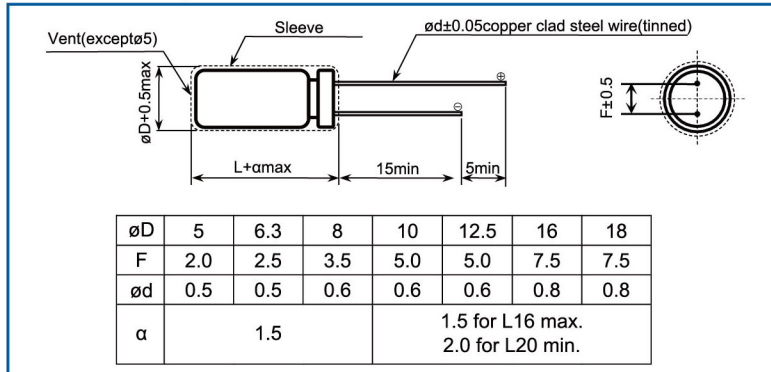
Suitable for LCD Monitor, DC-DC inverter, AC-DC inverter, DC-AC inverter

RoHS Compliance

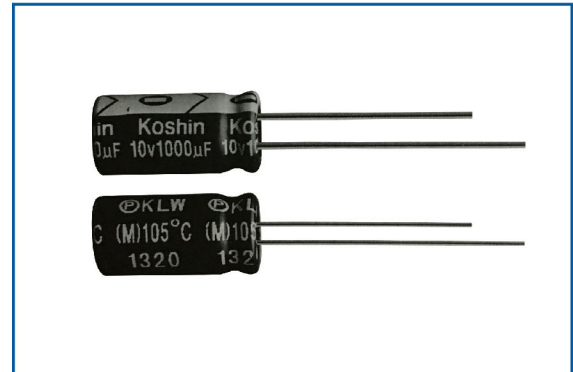
RoHS

#### Outline Drawing

Unit: mm



Photo



Marking color: White print on purple sleeve

#### Specifications

No.	Item	Performance
1	Temperature range(°C)	-40 to +105(6.3V~100V)
2	Leakage current (µA)	Less than 0.01CV or 3 whichever is larger (after two minutes) C: Rated Capacitance (µ F). 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 63 100 20°C
		Tanδ (max) 0.24 0.20 0.18 0.16 0.14 0.12 0.10 0.09 120Hz
		0.02 is added to every 1000 µ F increase over 1000 µ F
5	Low temperature characteristics	Rated voltage (V) 6.3 10 16 25 35 50 63 100 120Hz
		Impedance ratio(max) Z(-25°C)/Z(+20°C) 4 3 3 2 2 2 2 2 2 Z(-40°C)/Z(+20°C) 8 6 4 4 4 3 3 3 3
6	Endurance (105°C) (Applied ripple current)	Size
		Voltage
		Leakage current
		Percentage of capacitance change
		Tangent of the loss angle
7	Shelf life (105°C)	Test time
		Leakage current
		Percentage of capacitance change
		Tangent of the loss angle
8	Applicable standards	JIS-C-5101-4(IEC60384)

#### Coefficient of Frequency for Ripple Current

Frequency (Hz)	50 · 60	120	1K	10K	100K
Coefficient	0.50	0.55	0.80	0.85	1.00

#### Coefficient of Temperature for Ripple Current

Temperature(°C)	45	60	85	95	105
Coefficient	2.10	2.00	1.40	1.25	1.00



Dimension:  $\Phi$ DXL(mm)

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

### DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC Contents  $\mu$ F	6.3V			10V			16V		
	$\Phi$ DXL	Impedance $\Omega$ /100KHz 20°C	Ripple Current (mA/rms, 105°C)	$\Phi$ DXL	Impedance $\Omega$ /100KHz 20°C	Ripple Current (mA/rms, 105°C)	$\Phi$ DXL	Impedance $\Omega$ /100KHz 20°C	Ripple Current (mA/rms, 105°C)
47							5X11	2.520	160
100	5X11	2.100	185	5X11	2.000	200	6.3X11	0.930	280
150	5X11	1.700	210	5X11	1.650	220	6.3X11	0.870	360
220	6.3X11	0.760	305	6.3X11	0.680	360	8X11.5	0.750	455
330	6.3X11	0.640	330	6.3X11	0.660	380	8X11.5	0.650	650
470	8X11.5	0.460	350	8X11.5	0.440	590	8X16	0.360	740
							10X12.5	0.350	760
680	8X11.5	0.400	630	8X16	0.380	780	8X20	0.320	830
				10X12.5	0.390	840	10X16	0.310	1080
820	10X12.5	0.260	840	10X16	0.240	870	10X20	0.220	1160
1000	8X16	0.270	870	8X20	0.210	980	10X20	0.190	1260
				10X16	0.200	1180			
1200	8X20	0.230	1040	10X20	0.180	1360	10X25	0.170	1430
	10X16	0.190	1180						
1500	10X20	0.140	1390	10X25	0.130	1560	10X30	0.120	1620
							12.5X20	0.125	1580
1800				10X30	0.120	1890	12.5X25	0.110	1830
2200	10X25	0.140	1645	12.5X20	0.105	1570	12.5X25	0.095	1930
2700	10X30	0.100	1880				12.5X30	0.080	2270
3300	12.5X20	0.110	1850	12.5X25	0.090	1960	12.5X35	0.070	2520
3900	12.5X25	0.090	1980	12.5X30	0.075	2300	12.5X40	0.060	2890
							16X25	0.070	2510
4700	12.5X30	0.085	2340	12.5X35	0.070	2530	16X31.5	0.060	3050
							18X25	0.065	2750
5600	12.5X35	0.070	2570	12.5X40	0.060	2860	16X35.5	0.050	3160
				16X25	0.065	2520	18X31.5	0.050	3320
6800	12.5X40	0.055	2910	16X31.5	0.055	3020	16X40	0.045	3780
	16X25	0.070	2560	18X25	0.060	2730			
8200	16X31.5	0.050	3030	16X35.5	0.050	3180	18X35	0.045	3680
				18X31.5	0.050	3340			
10000	16X35.5	0.045	3190	16X40	0.045	3710	18X40	0.040	3810
	18X25	0.060	2810	18X35.5	0.048	3660			
12000	16X40	0.048	3680	18X40	0.045	3800			
	18X31.5	0.055	3350						



### DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension:  $\Phi$ DXL(mm)  
Ripple Current: mA/rms at 100KHz, 105°C

V.DC Contents $\mu$ F	25V			35V			50V		
	$\Phi$ DXL	Impedance $\Omega$ /100KHz 20°C	Ripple Current (mA/rms, 105°C)	$\Phi$ DXL	Impedance $\Omega$ /100KHz 20°C	Ripple Current (mA/rms, 105°C)	$\Phi$ DXL	Impedance $\Omega$ /100KHz 20°C	Ripple Current (mA/rms, 105°C)
22							5X11	3.000	155
33				5X11	2.000	175			
47	5X11	2.000	180	6.3X11	1.800	240	6.3X11	1.500	250
56	5X11	1.800	210	6.3X11	1.500	280	6.3X11	1.300	280
100	6.3X11	0.900	300	8X11.5	0.800	380	8X11.5	0.680	475
150				8X11.5	0.650	610	10X12.5	0.500	670
220	8X11.5	0.660	620	8X16	0.550	720	10X20	0.450	1010
				10X12.5	0.530	750			
330	8X16	0.500	720	10X16	0.450	970	10X25	0.400	1180
	10X12.5	0.510	740						
470	8X20	0.320	860	10X20	0.270	1200	10X30	0.220	1440
	10X16	0.300	940				12.5X20	0.220	1450
560				10X25	0.240	1420	12.5X25	0.160	1770
680	10X20	0.250	1240	10X30	0.180	1660	12.5X30	0.140	2210
				12.5X20	0.200	1600			
820	10X25	0.190	1390				12.5X35	0.120	2260
1000	10X30	0.150	1660	12.5X25	0.130	1920	12.5X40	0.100	2530
	12.5X20	0.160	1660				16X25	0.105	2280
1200				12.5X30	0.100	2280	16X31.5	0.100	2660
							18X25	0.105	2560
1500	12.5X25	0.100	1920	12.5X35	0.080	2450	16X35.5	0.080	2830
1800	12.5X30	0.090	2250	12.5X40	0.060	2860	16X40	0.070	3180
				16X25	0.065	2510	18X31.5	0.070	2980
2200	12.5X35	0.080	2500	16X31.5	0.060	2930	18X35.5	0.060	3100
				18X25	0.065	2680			
2700	12.5X40	0.070	2780	16X35.5	0.050	3140	18X40	0.050	3420
	16X25	0.080	2500	18X31.5	0.045	3320			
3300	16X31.5	0.060	3000	16X40	0.045	3630			
	18X25	0.063	2720	18X35.5	0.045	3640			
3900	16X35.5	0.050	3190	18X40	0.040	3760			
	18X31.5	0.045	3350						
4700	16X40	0.045	3720						
	18X35.5	0.048	3690						
5600	18X35.5	0.045	3850						



### DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension:  $\Phi$ DXL(mm)  
Ripple Current: mA/rms at 100KHz, 105°C

V <sub>DC</sub> Contents $\mu$ F	63V			100V		
	$\Phi$ DXL	Impedance $\Omega/100\text{KHz}$ 20 °C	Ripple Current (mA/rms, 105 °C)	$\Phi$ DXL	Impedance $\Omega/100\text{KHz}$ 20 °C	Ripple Current (mA/rms, 105 °C)
6.8				5X11	7.900	90
10	5X11	7.900	95	6.3X11	6.600	110
15	5X11	6.600	146	6.3X11	4.500	160
27				8X11.5	2.800	250
33	6.3X11	3.800	210	8X16	2.600	310
39				8X20	2.100	430
47	8X11.5	2.300	360	8X20	1.800	520
56	8X11.5	2.100	380	10X20	1.600	580
68	8X11.5	1.800	410	10X25	1.400	740
82	8X16	1.600	510	10X25	1.200	860
	10X12.5	1.550	520			
100	10X16	1.250	580	10X30	1.000	910
120	10X16	1.100	600	12.5X25	0.800	1010
150	8X20	0.900	580			
180	10X20	0.800	870	12.5X30	0.500	1160
220	10X25	0.800	1060	12.5X35	0.400	1380
270				12.5X40	0.300	1580
330	10X30	0.550	1310	16X31.5	0.250	1680
	12.5X20	0.570	1290	18X25	0.280	1580
390	12.5X25	0.500	1690	16X35.5	0.200	1920
				18X31.5	0.220	1880
470	12.5X30	0.450	2080	16X40	0.180	2100
560				18X35.5	0.200	1900
680	12.5X35	0.400	2240	18X40	0.180	2300
	16X25	0.420	2180			
820	12.5X40	0.380	2520			
	16X31.5	0.350	2540			
	18X25	0.340	2550			
1000	16X35.5	0.210	2700			
1200	16X40	0.150	2860			
	18X31.5	0.120	2920			
1500	18X35.5	0.105	3100			

