

Aluminum Electrolytic Type / Surface Mount Type

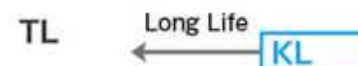
RoHS compliance

KL Series

Long Life



- 105°C 5,000hours
- Solvent proof (within 2 minutes)



Specifications

Items		Condition		Specifications							
Rated voltage (V)		-		6.3	10	16	25	35	50	63	100
Surge voltage (V)		Room temperature		8.0	13	20	32	44	63	79	125
Category temperature range (°C)		-		-55 to +105							
Capacitance tolerance (%)		120Hz/20°C		M : ±20							
Dissipation Factor (tan δ)	tan δ (max) 120Hz/20°C	φ4 to φ10		0.30	0.24	0.20	0.18	0.16	0.14	0.14	0.14
		φ12.5 to φ16		0.38	0.34	0.30	0.28	0.22	0.18	0.16	0.16
Leakage current (LC)		μA/after 2minutes (max)		Exceeding 1,000μF, +0.02 every 1,000μF The greater value of either 0.01CV or 3μA							
Impedance ratio at low temperature	Based on the value at 120Hz, +20°C	-25°C	Z/Z _{20°C}	4	3	2	2	2	2	2	2
		-55°C	Z/Z _{20°C}	10	7	5	3	3	3	3	3
Endurance	105°C, 5,000hours rated voltage applied (With the rated ripple current)	ΔC/C		Within ±30% of the initial value							
		tan δ		Less than 300% of the specified value							
		LC		Less than the specified value							

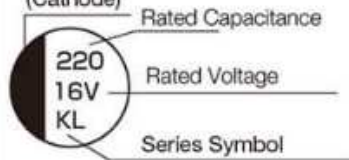
■ Marking, Dimensions

(Unit : mm)

[$\phi D \leq 10$]

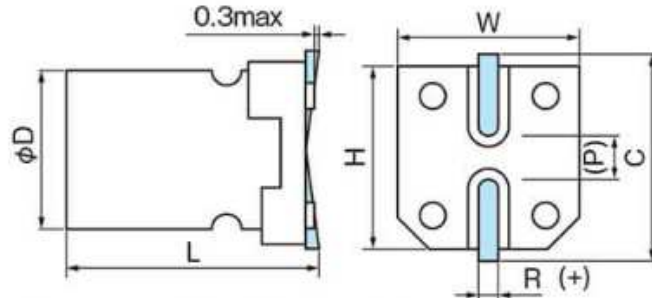
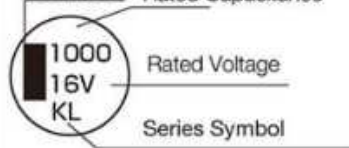
Polarity
(Cathode)

Black print on the case top



[$\phi D \geq 12.5$]

Polarity
(Cathode)



A pressure relief vent is provided for $\phi D=8$ or bigger (P)reference size

$D \pm 0.5$	L	$W \pm 0.2$	$H \pm 0.2$	$C \pm 0.2$	R	$P \pm 0.2$
4	5.8 ± 0.4	4.3	4.3	5.1	0.5 to 0.8	1.0
5	5.8 ± 0.4	5.3	5.3	6.1	0.5 to 0.8	1.3
6.3	5.8 ± 0.4	6.6	6.6	7.3	0.5 to 0.8	2.2
6.3	7.7 ± 0.4	6.6	6.6	7.3	0.5 to 0.8	2.2
8	10.5 ± 0.5	8.3	8.3	9.2	0.7 to 1.2	3.1
10	10.5 ± 0.5	10.3	10.3	11.2	0.7 to 1.2	4.4
10	13.5 ± 0.5	10.3	10.3	11.2	0.7 to 1.2	4.4
12.5	13.5 ± 0.5	13.0	13.0	14.0	1.0 to 1.4	4.4
12.5	16.0 ± 0.5	13.0	13.0	14.0	1.0 to 1.4	4.4
16	16.5 ± 0.5	17.0	17.0	18.0	1.0 to 1.4	6.4

■ Ripple Current Frequency Coefficient

Frequency:F(Hz)		$100 \leq F < 1k$	$1k \leq F < 10k$	$10k \leq F < 100k$	$100k \leq F$
Capacitance:C(μ F)	$C \leq 4.7$	1.00	1.30	1.50	1.80
	$4.7 < C \leq 33$	1.00	1.20	1.30	1.45
	$33 < C$	1.00	1.10	1.20	1.30

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■ Size, Rated Ripple Current

μF \ V	6.3		10		16		25		35	
4.7									4x5.8	16
10					4x5.8	18	5x5.8	27	5x5.8	27
22	4x5.8	22	5x5.8	30	5x5.8	30	6.3x5.8	44	6.3x5.8	44
33	5x5.8	35	5x5.8	36	6.3x5.8	48	6.3x5.8	50	6.3x7.7	57
47	5x5.8	40	6.3x5.8	50	6.3x5.8	50	6.3x7.7	63	8x10.5	92
100	6.3x5.8	65	6.3x7.7	80	6.3x7.7	80	8x10.5	120	8x10.5	130
150	6.3x7.7	85	8x10.5	125	8x10.5	125	10x10.5	220	10x10.5	290
220	6.3x7.7	120	8x10.5	140	8x10.5	140	10x10.5	220	10x10.5	320
330	8x10.5	220	8x10.5	220	10x10.5	290	10x10.5	320	10x13.5	350
			10x10.5	290	10x13.5	350	12.5x13.5	380		
470	10x10.5	320	10x10.5	320	10x10.5	320	10x13.5	350	10x13.5	350
			12.5x13.5	400	12.5x13.5	450				
680	10x10.5	320	10x10.5	320	10x13.5	390	12.5x13.5	450	12.5x13.5	500
			10x13.5	390						
1000	10x10.5	410	10x13.5	390	12.5x13.5	550	12.5x13.5	550	12.5x16.0	600
			12.5x13.5	500	12.5x16.0	650	12.5x16.0	600	16x16.5	650
			16x16.5	650						
1500	10x13.5	450	12.5x13.5	500	12.5x13.5	600	12.5x16.0	650		
			12.5x13.5	500	12.5x16.0	650	16x16.5	700		
2200	12.5x13.5	600	12.5x13.5	600	16x16.5	750				
			12.5x16.0	650						
3300	12.5x16.0	750	16x16.5	800						

μF \diagdown V	50		63		80		100	
0.47	4x5.8	5.0						
1.0	4x5.8	8						
2.2	4x5.8	12						
3.3	4x5.8	17					6.3x7.7	30
4.7	5x5.8	22					6.3x7.7	40
10	6.3x5.8	32	6.3x7.7	45	8x10.5	55	8x10.5	55
22	6.3x7.7	58	8x10.5	65	8x10.5	65	10x10.5	70
33	8x10.5	65	10x10.5	80	10x10.5	80	10x10.5	80
47	8x10.5	90	10x10.5	110	10x10.5	110	10x13.5	150
100	10x10.5	160	10x13.5	150	10x13.5	150	12.5x13.5	220
					12.5x13.5	180	12.5x16.0	290
150	10x13.5	190	12.5x13.5	220	12.5x13.5	220	12.5x16.0	300
					12.5x16.0	300	16x16.5	340
220	10x13.5	200	12.5x13.5	240	16x16.5	410		
	12.5x13.5	300	12.5x16.0	340				
330	12.5x13.5	380	12.5x16.0	360				
	12.5x16.0	450	16x16.5	500				
470	16x16.5	550						

Case size: ϕ DxL(mm)

Rated ripple current
mA_{rms}(120Hz, 105°C)