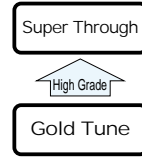


KG Lug / Snap-in Terminal Type,
For Audio Equipment
series



- Designed for high grade audio equipment, giving priority to high fidelity sound quality.
- The variation expansion of the KG series.
 - TYPE- I : The low profile high tone quality grade of the new development electrolyte adoption.
 - TYPE- II : The center grade that the best sound is provided electrode foil, with the multiple use.
 - TYPE- III : The highest tone quality grade by the low drag the gold plating terminal adoption.
- The sound quality that it meets the high tone quality needs for HD Audio equipment.
- Compliant to the RoHS directive (2002/95/EC).

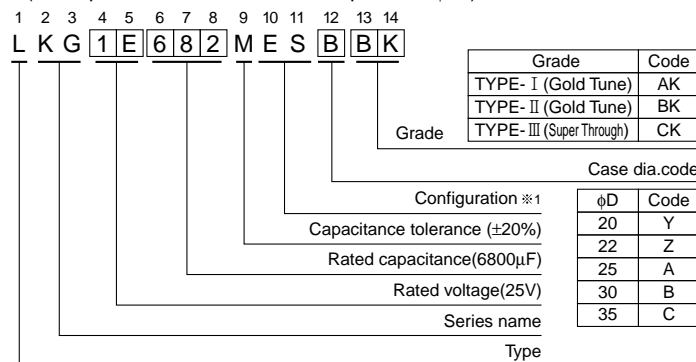


Specifications

Item	Performance Characteristics																				
Category Temperature Range	- 40 to +85°C																				
Rated Voltage Range	16 to 100V (TYPE- I , TYPE- II , TYPE- III)																				
Rated Capacitance Range	680 to 33000μF																				
Capacitance Tolerance	±20% at 120Hz, 20°C																				
Leakage Current	After 5 minutes' application of rated voltage, leakage current is not more than $3\sqrt{C/V}$ (μA), [C: Rated Capacitance(μF), V: Voltage (V)]																				
Tangent of loss angle (tan δ)	For capacitance of more than 22000μF, add 0.02 for every increase of 1000μF. Measurement frequency : 120Hz, Temperature : 20°C																				
	<table border="1"> <thead> <tr> <th>TYPE</th> <th colspan="3">TYPE- I , TYPE- II</th> <th colspan="3">TYPE- III</th> </tr> <tr> <th>Rated voltage(V)</th> <td>16</td> <td>25 to 63</td> <td>80 · 100</td> <td>16</td> <td>25 to 63</td> <td>80 · 100</td> </tr> <tr> <th>tan δ (MAX.)</th> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.25</td> <td>0.22</td> <td>0.20</td> </tr> </thead> </table>	TYPE	TYPE- I , TYPE- II			TYPE- III			Rated voltage(V)	16	25 to 63	80 · 100	16	25 to 63	80 · 100	tan δ (MAX.)	0.35	0.30	0.25	0.25	0.22
TYPE	TYPE- I , TYPE- II			TYPE- III																	
Rated voltage(V)	16	25 to 63	80 · 100	16	25 to 63	80 · 100															
tan δ (MAX.)	0.35	0.30	0.25	0.25	0.22	0.20															
Stability at Low Temperature	Measurement frequency : 120Hz																				
	<table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <td>16 to 100</td> </tr> <tr> <th rowspan="2">Impedance ratio ZT/Z20(MAX.)</th> <td>Z - 25°C/Z+20°C</td> </tr> <tr> <td>Z - 40°C/Z+20°C</td> </tr> </thead> <tbody> <tr> <td></td> <td>4</td> </tr> <tr> <td></td> <td>12</td> </tr> </tbody> </table>	Rated voltage(V)	16 to 100	Impedance ratio ZT/Z20(MAX.)	Z - 25°C/Z+20°C	Z - 40°C/Z+20°C		4		12											
Rated voltage(V)	16 to 100																				
Impedance ratio ZT/Z20(MAX.)	Z - 25°C/Z+20°C																				
	Z - 40°C/Z+20°C																				
	4																				
	12																				
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 85°C.																				
	Capacitance change	Within ±20% of the initial capacitance value																			
	tan δ	200% or less than the initial specified value																			
Shelf Life	Leakage current	Less than or equal to the initial specified value																			
	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.																				
Marking	Printed with gold color letter on black sleeve.																				

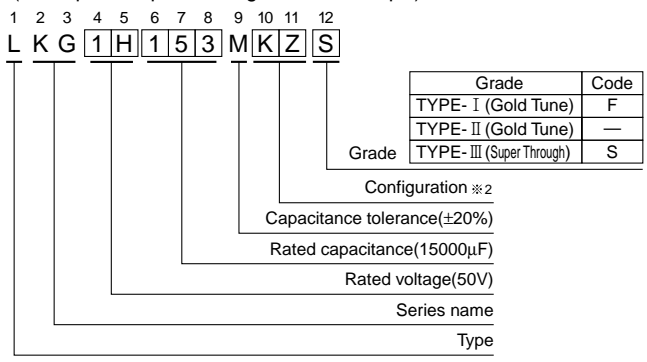
Type numbering system (Snap-in terminal type)

(Example : Gold Tune 25 V 6800μF, Dia.φ30)



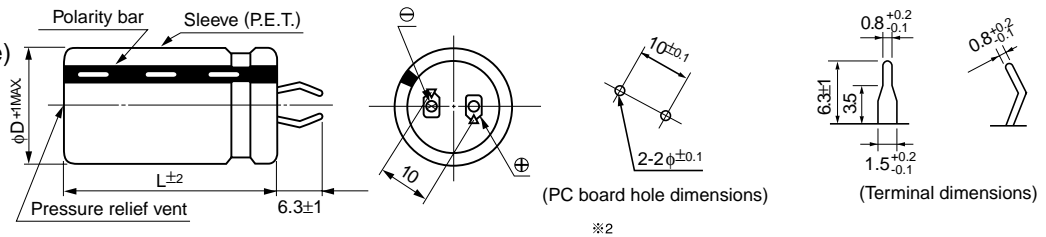
Type numbering system (Lug terminal type)

(Example : Super Through 50 V 15000μF)

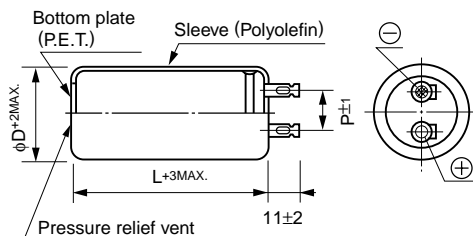


※ 1 Configuration
Pb-free terminal
Pb-free PET sleeve
ES

(Snap-in terminal type)

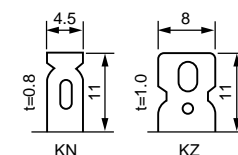


(Lug terminal type)



Configuration

φ35 to φ40 φ50 to φ76



	(mm)				
φD	35	40	50	63	76
P	14	14	18	25	25
Configuration	KN		KZ		

● Dimension table in next page.

ALUMINUM ELECTROLYTIC CAPACITORS



■Dimensions (Snap-in Terminal Type : Gold Tune, Super Through)

Cap.(μF)	Code	Grade	16V (1C)					25V (1E)					35V (1V)					50V (1H)				
			φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
680	681	TYPE- III						20×20 0.65									20×30 1.05	22×25 1.00				
820	821	TYPE- II																22×20 1.00				
		TYPE- III							22×20 0.75				20×25 0.85		25×20 0.85			22×30 1.40	25×25 1.35	30×20 1.35		
1000	102	TYPE- II																20×25 1.50				
		TYPE- III	20×20 0.90								25×20 0.95			20×30 1.05	22×25 1.00			20×35 1.80				
1200	122	TYPE- II																20×30 1.65				
		TYPE- III		22×20 0.95						20×25 1.20				20×35 1.45	22×30 1.45	25×25 1.40	30×20 1.40	20×40 1.95		25×30 1.95	30×25 1.90	35×20 1.90
1500	152	TYPE- I																22×20 1.55				
		TYPE- II												20×25 1.40				20×35 1.80	22×30 1.80			30×20 1.80
		TYPE- III	20×25 1.10		25×20 1.10					20×30 1.30		30×20 1.30		20×40 1.55	22×35 1.55	25×30 1.50		20×50 2.20	22×45 2.20	25×35 2.15	30×30 2.15	
1800	182	TYPE- I																20×25 1.70				
		TYPE- II								20×20 1.35								22×25 1.55	25×20 1.65			
		TYPE- III		22×25 1.20						20×35 1.60			25×25 1.55				20×45 1.80	22×40 1.75		30×25 1.75	35×20 1.70	22×50 2.45
2200	222	TYPE- I																20×30 1.85	22×25 1.85			
		TYPE- II	20×20 1.10							20×25 1.50		25×20 1.50						20×45 2.35	22×35 2.35	25×30 2.30		35×20 2.25
		TYPE- III	20×30 1.35			30×20 1.35				20×40 1.85	22×35 1.85	25×30 1.80	30×25 1.80	35×20 1.75			20×30 2.00	22×45 1.95	25×35 1.95	30×30 1.95	25×50 2.65	
2700	272	TYPE- I																20×25 1.60	25×20 1.55			
		TYPE- II								20×30 1.70	22×25 1.70							20×35 2.05	22×30 2.05	25×25 2.00	30×20 2.05	20×35 2.00
		TYPE- III	20×35 1.75		25×25 1.75					20×50 2.20	22×45 2.20	25×35 2.15					20×35 2.05	22×30 2.05	25×25 2.00	30×20 2.05	20×50 2.45	
3300	332	TYPE- I																22×20 1.50				
		TYPE- II		22×20 1.50						20×35 1.80	22×30 1.80		30×20 1.85					20×40 2.25	22×35 2.25	25×30 2.20		20×40 2.25
		TYPE- III	20×40 2.00		25×30 2.00		35×20 1.95			22×50 2.50	25×40 2.45	30×30 2.40	35×25 2.45				20×35 2.00	22×40 2.00	25×30 2.00	30×40 2.70	35×30 2.65	
3900	392	TYPE- I								20×25 1.60		25×20 1.55						20×45 2.45	22×40 2.35	25×30 2.50		20×45 2.45
		TYPE- II	20×25 1.55		25×20 1.55					20×50 2.30	22×45 2.30	25×35 2.10					20×45 2.40	22×40 2.40	25×35 2.30	35×20 2.50	20×50 2.45	
		TYPE- III	20×50 2.30	22×45 2.30	25×35 2.35	30×25 2.35				20×30 1.70	22×25 1.70	25×20 1.70					20×45 2.40	22×40 2.40	25×35 2.30	30×20 1.85	20×50 2.45	
4700	472	TYPE- I																20×30 1.70	22×25 1.70			
		TYPE- II	20×30 1.75		22×25 1.75					20×45 2.30	22×35 2.30	25×30 2.25		35×20 2.20				20×35 2.20	22×30 2.20	25×25 2.15	30×30 2.55	20×50 2.75
		TYPE- III	22×50 2.75	25×40 2.70	30×30 2.70	35×25 2.60				20×40 2.40	22×35 2.35	25×30 2.25	30×40 3.25	35×30 3.15			20×40 2.40	22×35 2.35	25×30 2.25	30×40 3.55	35×40 3.55	
5600	562	TYPE- I	20×25 1.45															22×20 1.35				
		TYPE- II				30×20 1.85				20×50 2.50	22×40 2.50	25×35 2.40	30×25 2.50					20×45 3.00	22×40 3.00	25×40 3.00	35×20 2.25	22×50 2.90
		TYPE- III			25×45 2.90	30×35 2.90				20×35 2.20	22×30 2.20	25×25 2.15					20×50 2.50	22×40 2.60	25×35 2.60	30×25 2.60	25×40 2.90	
6800	682	TYPE- I																25×20 1.70				
		TYPE- II	20×35 2.20	22×30 2.20	25×25 2.15					20×35 2.20	22×30 2.20	25×25 2.15						20×45 3.10	22×40 3.10	25×35 3.05	35×20 3.30	25×40 3.10
		TYPE- III		25×50 3.20	30×40 3.20	35×30 3.15				22×50 2.65	25×40 2.65	30×30 2.65					20×45 3.10	22×40 3.10	25×35 3.05	35×20 3.30	25×40 3.10	
8200	822	TYPE- I	20×30 1.90	22×25 1.90														20×30 1.90	22×25 1.90			
		TYPE- II	20×40 2.40	22×35 2.40	25×30 2.30					20×40 2.40	22×35 2.35	25×30 2.30		35×20 2.25				20×45 2.90	22×40 2.90	25×40 2.70	30×30 2.75	30×40 3.55
		TYPE- III			30×45 3.35	35×35 3.30				25×50 3.30	25×40 3.30	30×40 3.30					20×45 3.00	22×40 3.00	25×35 3.00	30×40 3.60	35×35 3.30	
10000	103	TYPE- I	20×35 2.05	22×30 2.05	25×25 2.00	30×20 2.10												20×30 2.05	22×25 2.05			
		TYPE- II	20×50 2.65	22×40 2.65	25×35 2.45	30×25 2.50				20×40 2.55	22×35 2.65	25×30 2.60	30×25 2.65				20×50 2.65	22×40 2.65	25×35 2.65	30×30 3.30	35×30 3.30	
		TYPE- III			30×45 3.35	35×35 3.30				25×50 3.30	25×40 3.30	30×40 3.30					20×45 3.30	22×40 3.30	25×35 3.30	30×40 3.80	35×40 3.70	
12000	123	TYPE- I	20×40 2.25	22×35 2.20	25×30 2.15													20×30 2.20	22×25 2.15			
		TYPE- II		22×50 2.75	25×40 2.75	30×30 2.75				22×45 2.90	25×40 2.75	30×30 2.80	35×25 2.65				20×40 2.40	22×35 2.35	25×30 2.30	30×20 2.25	22×50 2.75	
		TYPE- III				35×45 3.70				25×50 3.70	25×40 3.70	30×40 3.70	35×35 3.50				20×50 2.55	22×40 2.65	25×35 2.60	30×30 3.30	35×30 3.30	
15000	153	TYPE- I	20×45 2.60	22×40 2.50	25×35 2.40	30×25 2.50												20×35 2.60	22×30 2.60			
		TYPE- II			25×45 3.10	30×35 3.10				25×45 3.15	25×40 3.10	30×35 3.10						20×45 3.80	22×40 3.80	25×35 3.80	30×25 3.80	25×40 3.80
18000	183	TYPE- I		22×45 2.80	25×40 2.60	30×30 2.65												20×40 2.80	22×35 2.80			
		TYPE- II			25×50 3.50	30×40 3.40	35×30 3.45			25×50 3.55	25×40 3.40	30×40 3.50						20×45 3.50	22×40 3.50	25×35 3.50	30×30 4.45	35×45 4.45
22000	223	TYPE- I			25×45 2.95	30×35 2.90	35×25 2.90											20×35 2.95	22×30 2.95			
		TYPE- II			30×45 3.80	35×35 3.80				25×45 3.85	25×40 3.85	30×45 3.85	35×35 3.85					20×45 4.70	22×40 4.70	25×35 4.70	30×30 4.70	35×45 4.70
27000	273	TYPE- I			25×50 3.40	30×40 3.25	35×30 3.35												20×40 3.40	22×35 3.40		
		TYPE- II			30×50 4.25	35×40 4.25				25×50 4.25	25×40 4.25	30×50 4.25						20×45 4.25	22×40 4.25	25×35 4.25	30×30 4.25	35×45 4.25
33000	333	TYPE- I			30×45 3.70	35×35 3.65													20×35 3.70	22×30 3.70		
		TYPE- II			35×45 4.50					25×45 4.50	25×40 4.50	30×45 4.85							20×45 4.50	22×40 4.50	25×35 4.50	30×30 4.50

Case Size φD×L (mm)
Rated ripple

Rated ripple current (Arms) at 85°C 120 Hz

ALUMINUM ELECTROLYTIC CAPACITORS



■Dimensions (Snap-in Terminal Type : Gold Tune, Super Through)

Cap.(μF)	Code	Grade	63V (1J)					80V (1K)					100V (2A)					
			φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	
680	681	TYPE- I											20×30 1.70	22×25 1.75				
		TYPE- II											20×40 2.15	22×35 2.15	25×30 2.10			
		TYPE- III	20×30 1.75	22×25 1.75		30×20 1.90		20×45 2.10	22×35 2.25	25×30 2.15				22×45 2.65	25×35 2.70			
820	821	TYPE- I		22×20 1.30				20×25 1.70	22×30 2.05	25×20 1.65			20×35 1.85	22×30 1.85	25×25 1.80	30×20 1.90		
		TYPE- II	20×25 1.65		25×20 1.65		20×35 2.05	22×30 2.05	25×25 2.00	30×20 2.05		20×45 2.40	22×40 2.40		30×25 2.35	35×20 2.45		
		TYPE- III	20×35 1.90	22×30 1.90	25×25 1.85		20×50 2.40	22×40 2.45	25×35 2.35	30×25 2.40	35×20 2.55		22×50 3.00	25×40 3.00	30×30 3.00	35×25 2.85		
1000	102	TYPE- I	20×25 1.45				20×30 1.80	22×25 1.85					20×40 2.05					
		TYPE- II	20×30 1.85	22×25 1.85			20×45 2.20	22×35 2.20	25×30 2.15		35×20 2.10		22×45 2.70	25×35 2.75				
		TYPE- III	20×40 2.10	22×35 2.05	25×30 2.00			22×50 2.60	25×40 2.60	30×30 2.60				25×50 3.10	30×35 3.30	35×30 3.05		
1200	122	TYPE- I			25×20 1.65			20×35 1.95	22×30 1.95	25×25 1.90			20×45 2.30	22×40 2.20	25×30 2.35	30×25 2.30	35×20 2.30	
		TYPE- II	20×35 1.95	22×30 1.95	25×25 1.90	30×20 1.95		20×50 2.45	22×40 2.45	25×35 2.30	30×25 2.40		22×50 3.00	25×40 2.75	30×30 3.05	35×25 2.90		
		TYPE- III	20×45 2.35	22×40 2.25		30×25 2.20	35×20 2.30			25×45 2.85	30×35 2.80	35×25 2.95			30×40 3.60	35×35 3.30		
1500	152	TYPE- I	20×30 1.90	22×25 1.90				20×40 2.20	22×35 2.15	25×30 2.10			20×50 2.65	22×45 2.55	25×35 2.60			
		TYPE- II	20×40 2.15	22×35 2.15	25×30 2.10				22×50 2.60	25×40 2.65	30×30 2.65			25×50 3.20	30×35 3.40	35×30 3.20		
		TYPE- III		22×45 2.60	25×35 2.65					25×50 3.30	30×40 3.20	35×30 3.25			30×50 3.90	35×40 3.75		
1800	182	TYPE- I	20×35 2.05	22×30 2.00	25×25 2.00	30×20 2.05		20×45 2.45	22×40 2.35				22×50 2.85	25×40 2.85	30×30 2.90	35×25 2.75		
		TYPE- II	20×45 2.35	22×40 2.35		30×25 2.35	35×20 2.45			25×45 2.85	30×35 2.85	35×25 3.00			30×40 3.70	35×35 3.40		
		TYPE- III		22×50 2.90	25×40 2.90	30×30 2.90	35×25 2.75				30×45 3.55	35×35 3.50				35×45 4.15		
2200	222	TYPE- I	20×40 2.25	22×35 2.20	25×30 2.15		35×20 2.10		22×45 2.70	25×35 2.75	30×30 2.55				25×45 3.20	30×35 3.20	35×30 3.00	
		TYPE- II		22×45 2.70	25×35 2.75	30×30 2.50	30×30 2.50			25×50 3.25	30×40 3.15	35×30 3.25			30×50 3.95	35×40 3.80		
		TYPE- III			25×45 3.25	30×35 3.20					30×50 4.05	35×40 3.90				35×50 4.75		
2700	272	TYPE- I	20×50 2.40	22×40 2.45	25×35 2.35	30×25 2.50										30×40 3.55	35×35 3.25	
		TYPE- II			25×45 2.80	30×35 2.75	35×25 2.95										35×45 4.30	
		TYPE- III				30×45 3.30	35×30 3.65											
3300	332	TYPE- I		22×45 2.80	25×40 2.60	30×30 2.70						25×50 3.25	30×40 3.15	35×30 3.20		30×50 3.75		
		TYPE- II			25×50 3.20	30×40 3.20	35×30 3.15						30×50 4.10	35×40 3.95			35×50 4.95	
		TYPE- III				30×50 3.80	35×35 4.00							35×50 5.05				
3900	392	TYPE- I			25×45 2.85	30×35 2.85	35×25 3.00					30×45 3.45	35×35 3.40				35×40 4.30	
		TYPE- II				30×45 3.35	35×35 3.35							35×45 4.35				
		TYPE- III					35×40 4.30											
4700	472	TYPE- I			25×50 3.20	30×40 3.10	35×30 3.20						30×45 3.85	35×40 3.75			35×50 4.50	
		TYPE- II				30×50 3.80								35×50 4.85				
		TYPE- III					35×50 4.50											
5600	562	TYPE- I				30×45 3.45	35×35 3.40							35×45 4.10				
		TYPE- II					35×40 4.35											
6800	682	TYPE- I					30×50 3.90	35×40 3.75						35×50 4.65				
		TYPE- II						35×50 4.60										
8200	822	TYPE- I						35×45 4.20										
10000	103	TYPE- I						35×50 4.80									Case size φD × L (mm) Rated ripple	

Rated ripple current (Arms) at 85°C 120 Hz

■Dimensions (Lug Terminal Type : Gold Tune, Super Through)

Cap.(F)	Code	Grade	50 (1H)		63 (1J)		80 (1K)		100 (2A)					
6800	682	TYPE- I							40×68	5.1				
		TYPE- II					35×68	4.3	40×100	6.1	50×80	6.2		
		TYPE- III	40×80	5.5	40×100	6.1	50×80	6.7	50×100	7.3				
10000	103	TYPE- I							40×68	5.4	40×100	6.0		
		TYPE- II	35×80	4.6	40×80	4.9	50×80	6.2	50×100	6.9				
		TYPE- III	40×100	6.1	50×80	6.2	63×80	7.6	63×100	8.3				
15000	153	TYPE- I							40×68	5.6	40×100	6.5	50×100	7.4
		TYPE- II	40×80	6.1	40×100	6.7	50×100	8.4	63×80	8.7				
		TYPE- III	50×100	8.4	63×80	8.7	63×100	10.1	76×100	11.3				
22000	223	TYPE- I	40×68	5.4	40×100	6.6	50×100	7.8	63×80	9.7				
		TYPE- II	50×80	8.3	50×100	9.1	63×100	11.6	76×100	12.9				
		TYPE- III	63×80	10.5	63×100	11.6	76×100	13.7			Case size φD × L (mm) Rated ripple			

Rated ripple current (Arms) at 85°C 120 Hz