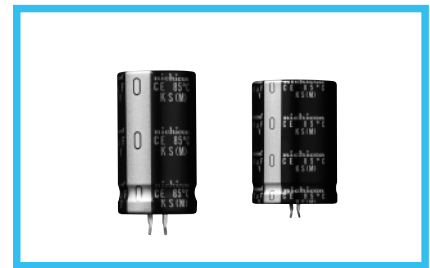
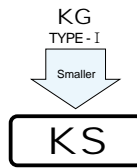


ALUMINUM ELECTROLYTIC CAPACITORS

KS Snap-in Terminal Type, For Audio Equipment, Smaller-sized series



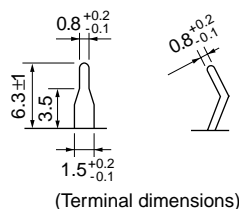
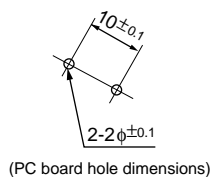
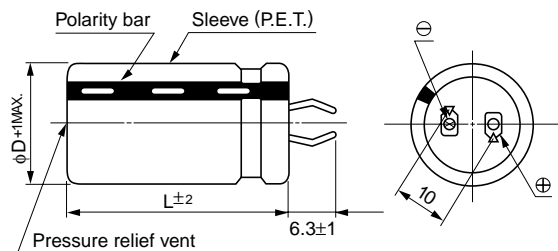
- Smaller and high-tone quality than KG series TYPE- I grade.
- An effect to tone quality improvement by replacement from a small standard product to use.
- Compliant to the RoHS directive (2011/65/EU).



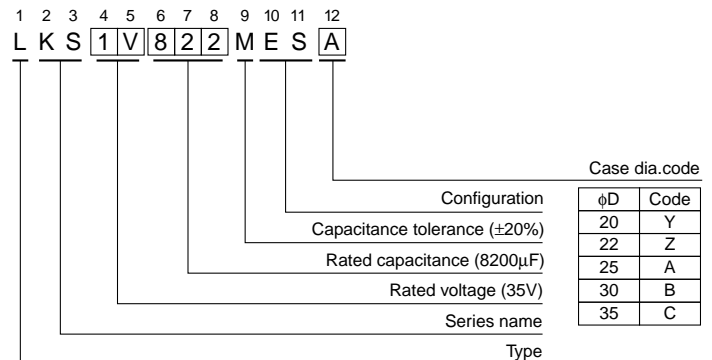
Specifications

Item	Performance Characteristics									
Category Temperature Range	- 40 to +85°C									
Rated Voltage Range	25 to 100V									
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 $3\sqrt{CV}$ (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 at 20°C									
	<table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>25 to 71</th> <th>80 • 100</th> </tr> </thead> <tbody> <tr> <td>tan δ (MAX.)</td> <td>0.30</td> <td>0.25</td> </tr> </tbody> </table>	Rated voltage(V)	25 to 71	80 • 100	tan δ (MAX.)	0.30	0.25			
Rated voltage(V)	25 to 71	80 • 100								
tan δ (MAX.)	0.30	0.25								
Stability at Low Temperature	<table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>25 to 100</th> <th rowspan="2">Measurement frequency : 120Hz</th> </tr> </thead> <tbody> <tr> <td>Impedance ratio ZT/Z20(MAX.)</td> <td> <table border="1"> <thead> <tr> <th>Z - 25°C/Z+20°C</th> <th>4</th> </tr> </thead> <tbody> <tr> <th>Z - 40°C/Z+20°C</th> <th>12</th> </tr> </tbody> </table> </td> </tr> </tbody> </table>	Rated voltage(V)	25 to 100	Measurement frequency : 120Hz	Impedance ratio ZT/Z20(MAX.)	<table border="1"> <thead> <tr> <th>Z - 25°C/Z+20°C</th> <th>4</th> </tr> </thead> <tbody> <tr> <th>Z - 40°C/Z+20°C</th> <th>12</th> </tr> </tbody> </table>	Z - 25°C/Z+20°C	4	Z - 40°C/Z+20°C	12
	Rated voltage(V)	25 to 100	Measurement frequency : 120Hz							
Impedance ratio ZT/Z20(MAX.)	<table border="1"> <thead> <tr> <th>Z - 25°C/Z+20°C</th> <th>4</th> </tr> </thead> <tbody> <tr> <th>Z - 40°C/Z+20°C</th> <th>12</th> </tr> </tbody> </table>	Z - 25°C/Z+20°C		4	Z - 40°C/Z+20°C	12				
Z - 25°C/Z+20°C	4									
Z - 40°C/Z+20°C	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.									
	<table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </tbody> </table>	Capacitance change	Within ±20% of the initial value	tan δ	200% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value			
	Capacitance change	Within ±20% of the initial value								
tan δ	200% or less than the initial specified value									
Leakage current	Less than or equal to the initial specified value									
Shelf Life	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 silver color letter on black sleeve.									

Drawing



Type numbering system (Example : 35 V 8200μF)



● Dimension table in next page.

KS series

■ Dimensions

25V (1E)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
3300	22 × 20	1.40	0.30	LKS1E332MESZ
4700	20 × 25	1.50	0.30	LKS1E472MESY
	25 × 20	1.50	0.30	LKS1E472MESA
5600	20 × 30	1.65	0.30	LKS1E562MESY
	22 × 25	1.65	0.30	LKS1E562MESZ
6800	20 × 35	1.95	0.30	LKS1E682MESY
	22 × 30	1.95	0.30	LKS1E682MESZ
	25 × 25	1.95	0.30	LKS1E682MESA
	30 × 20	1.95	0.30	LKS1E682MESB
8200	20 × 40	2.25	0.30	LKS1E822MESY
	22 × 35	2.25	0.30	LKS1E822MESZ
10000	20 × 45	2.45	0.30	LKS1E103MESY
	22 × 40	2.45	0.30	LKS1E103MESZ
	25 × 30	2.45	0.30	LKS1E103MESA
	30 × 25	2.45	0.30	LKS1E103MESB
	35 × 20	2.45	0.30	LKS1E103MESZ
12000	20 × 50	2.65	0.30	LKS1E123MESY
	22 × 45	2.65	0.30	LKS1E123MESZ
	25 × 35	2.65	0.30	LKS1E123MESA
	30 × 30	2.65	0.30	LKS1E123MESB
	35 × 25	2.65	0.30	LKS1E123MESZ
15000	22 × 50	3.00	0.30	LKS1E153MESZ
	25 × 40	3.00	0.30	LKS1E153MESA
18000	25 × 50	3.35	0.30	LKS1E183MESA
	30 × 35	3.35	0.30	LKS1E183MESB
	35 × 30	3.35	0.30	LKS1E183MESZ
22000	30 × 45	3.75	0.30	LKS1E223MESB
	35 × 35	3.75	0.30	LKS1E223MESZ
27000	30 × 50	4.20	0.40	LKS1E273MESB
	35 × 40	4.20	0.40	LKS1E273MESZ
33000	35 × 45	4.60	0.52	LKS1E333MESZ

35V (1V)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
2200	22 × 20	1.40	0.30	LKS1V222MESZ
3300	20 × 25	1.50	0.30	LKS1V332MESY
	25 × 20	1.50	0.30	LKS1V332MESA
3900	20 × 30	1.70	0.30	LKS1V392MESY
	22 × 25	1.70	0.30	LKS1V392MESZ
4700	20 × 35	2.10	0.30	LKS1V472MESY
	22 × 30	2.10	0.30	LKS1V472MESZ
	30 × 20	2.10	0.30	LKS1V472MESB
5600	20 × 40	2.25	0.30	LKS1V562MESY
	22 × 35	2.25	0.30	LKS1V562MESZ
	25 × 25	2.25	0.30	LKS1V562MESA
6800	20 × 45	2.50	0.30	LKS1V682MESY
	22 × 40	2.50	0.30	LKS1V682MESZ
	25 × 30	2.50	0.30	LKS1V682MESA
	35 × 20	2.50	0.30	LKS1V682MESZ
8200	20 × 50	2.70	0.30	LKS1V822MESY
	22 × 45	2.70	0.30	LKS1V822MESZ
	25 × 35	2.70	0.30	LKS1V822MESA
10000	30 × 25	2.70	0.30	LKS1V822MESB
	22 × 50	2.95	0.30	LKS1V103MESZ
	25 × 40	2.95	0.30	LKS1V103MESA
	30 × 30	2.95	0.30	LKS1V103MESB
	35 × 25	2.95	0.30	LKS1V103MESZ
12000	25 × 45	3.25	0.30	LKS1V123MESA
	30 × 35	3.25	0.30	LKS1V123MESB
	35 × 30	3.25	0.30	LKS1V123MESZ
15000	30 × 40	3.70	0.30	LKS1V153MESB
18000	30 × 50	4.05	0.30	LKS1V183MESB
	35 × 35	4.05	0.30	LKS1V183MESZ
22000	35 × 40	4.40	0.30	LKS1V223MESZ
27000	35 × 50	4.80	0.40	LKS1V273MESZ

42V (A2)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
1800	22 × 20	1.40	0.30	LKSA2182MESZ
2200	20 × 25	1.55	0.30	LKSA2222MESY
	25 × 20	1.55	0.30	LKSA2222MESA
2700	20 × 30	1.70	0.30	LKSA2272MESY
	22 × 25	1.70	0.30	LKSA2272MESZ
3300	20 × 35	2.00	0.30	LKSA2332MESY
	22 × 30	2.00	0.30	LKSA2332MESZ
	30 × 20	2.00	0.30	LKSA2332MESB
3900	25 × 25	2.25	0.30	LKSA2392MESA
4700	20 × 40	2.50	0.30	LKSA2472MESY
	22 × 35	2.50	0.30	LKSA2472MESZ
	25 × 30	2.50	0.30	LKSA2472MESA
	35 × 20	2.50	0.30	LKSA2472MESZ
5600	20 × 50	2.70	0.30	LKSA2562MESY
	22 × 40	2.70	0.30	LKSA2562MESZ
	25 × 35	2.70	0.30	LKSA2562MESA
	30 × 25	2.70	0.30	LKSA2562MESB
6800	22 × 45	2.90	0.30	LKSA2682MESZ
	25 × 40	2.90	0.30	LKSA2682MESA
	30 × 30	2.90	0.30	LKSA2682MESB
	35 × 25	2.90	0.30	LKSA2682MESZ
8200	25 × 45	3.20	0.30	LKSA2822MESA
	30 × 35	3.20	0.30	LKSA2822MESB
10000	25 × 50	3.50	0.30	LKSA2103MESA
	30 × 40	3.50	0.30	LKSA2103MESB
	35 × 30	3.50	0.30	LKSA2103MESZ
12000	30 × 45	3.80	0.30	LKSA2123MESB
	35 × 35	3.80	0.30	LKSA2123MESZ
15000	30 × 50	4.15	0.30	LKSA2153MESB
	35 × 40	4.15	0.30	LKSA2153MESZ
18000	35 × 45	4.50	0.30	LKSA2183MESZ

50V (1H)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
1500	22 × 20	1.45	0.30	LKS1H152MESZ
1800	20 × 25	1.60	0.30	LKS1H182MESY
2200	20 × 30	1.75	0.30	LKS1H222MESY
	22 × 25	1.75	0.30	LKS1H222MESZ
	25 × 20	1.75	0.30	LKS1H222MESA
2700	30 × 20	1.90	0.30	LKS1H272MESB
3300	20 × 35	2.15	0.30	LKS1H332MESY
	22 × 30	2.15	0.30	LKS1H332MESZ
	25 × 25	2.15	0.30	LKS1H332MESA
3900	20 × 40	2.30	0.30	LKS1H392MESY
	22 × 35	2.30	0.30	LKS1H392MESZ
	25 × 30	2.30	0.30	LKS1H392MESA
	35 × 20	2.30	0.30	LKS1H392MESZ
4700	20 × 50	2.55	0.30	LKS1H472MESY
	22 × 40	2.55	0.30	LKS1H472MESZ
	30 × 25	2.55	0.30	LKS1H472MESB
5600	22 × 45	2.80	0.30	LKS1H562MESZ
	25 × 35	2.80	0.30	LKS1H562MESA
	30 × 30	2.80	0.30	LKS1H562MESB
6800	25 × 45	3.15	0.30	LKS1H682MESA
	30 × 35	3.15	0.30	LKS1H682MESB
	35 × 25	3.15	0.30	LKS1H682MESZ
8200	30 × 40	3.45	0.30	LKS1H822MESB
	35 × 30	3.45	0.30	LKS1H822MESZ
10000	30 × 45	3.85	0.30	LKS1H103MESB
	35 × 35	3.85	0.30	LKS1H103MESZ
	30 × 50	4.20	0.30	LKS1H123MESB
12000	35 × 40	4.20	0.30	LKS1H123MESZ
	35 × 45	4.55	0.30	LKS1H153MESZ
18000	35 × 50	4.90	0.30	LKS1H183MESZ

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

CAT.8100C

KS series
 ■ Dimensions

56V (N2)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
1200	22 × 20	1.45	0.30	LKSN2122MESZ
1500	20 × 25	1.60	0.30	LKSN2152MESY
	25 × 20	1.60	0.30	LKSN2152MESA
1800	22 × 25	1.70	0.30	LKSN2182MESZ
2200	20 × 30	1.85	0.30	LKSN2222MESY
	30 × 20	1.85	0.30	LKSN2222MESB
2700	20 × 35	2.10	0.30	LKSN2272MESY
	22 × 30	2.10	0.30	LKSN2272MESZ
	25 × 25	2.10	0.30	LKSN2272MESA
3300	20 × 40	2.35	0.30	LKSN2332MESY
	22 × 35	2.35	0.30	LKSN2332MESZ
	25 × 30	2.35	0.30	LKSN2332MESA
	35 × 20	2.35	0.30	LKSN2332MESB
3900	20 × 50	2.60	0.30	LKSN2392MESY
	22 × 40	2.60	0.30	LKSN2392MESZ
	25 × 35	2.60	0.30	LKSN2392MESA
	30 × 25	2.60	0.30	LKSN2392MESB
4700	22 × 45	2.90	0.30	LKSN2472MESZ
	30 × 30	2.90	0.30	LKSN2472MESB
5600	22 × 50	3.20	0.30	LKSN2562MESZ
	25 × 40	3.20	0.30	LKSN2562MESA
	30 × 35	3.20	0.30	LKSN2562MESB
	35 × 25	3.20	0.30	LKSN2562MESB
6800	25 × 50	3.50	0.30	LKSN2682MESA
	30 × 40	3.50	0.30	LKSN2682MESB
	35 × 30	3.50	0.30	LKSN2682MESB
8200	30 × 45	3.80	0.30	LKSN2822MESB
	35 × 35	3.80	0.30	LKSN2822MESB
10000	30 × 50	4.15	0.30	LKSN2103MESB
	35 × 40	4.15	0.30	LKSN2103MESB
12000	35 × 45	4.45	0.30	LKSN2123MESB
15000	35 × 50	4.75	0.30	LKSN2153MESB

63V (1J)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
1200	22 × 20	1.50	0.30	LKS1J122MESZ
1500	20 × 25	1.65	0.30	LKS1J152MESY
	25 × 20	1.65	0.30	LKS1J152MESA
1800	20 × 30	1.80	0.30	LKS1J182MESY
	22 × 25	1.80	0.30	LKS1J182MESZ
2200	30 × 20	2.00	0.30	LKS1J222MESB
2700	20 × 35	2.25	0.30	LKS1J272MESY
	22 × 30	2.25	0.30	LKS1J272MESZ
	25 × 25	2.25	0.30	LKS1J272MESA
3300	20 × 45	2.45	0.30	LKS1J332MESY
	22 × 35	2.45	0.30	LKS1J332MESZ
	25 × 30	2.45	0.30	LKS1J332MESA
	35 × 20	2.45	0.30	LKS1J332MESB
3900	20 × 50	2.70	0.30	LKS1J392MESY
	22 × 40	2.70	0.30	LKS1J392MESZ
	25 × 35	2.70	0.30	LKS1J392MESA
	30 × 25	2.70	0.30	LKS1J392MESB
4700	22 × 45	3.00	0.30	LKS1J472MESZ
	25 × 40	3.00	0.30	LKS1J472MESA
	30 × 30	3.00	0.30	LKS1J472MESB
5600	35 × 25	3.00	0.30	LKS1J472MESB
	25 × 45	3.30	0.30	LKS1J562MESA
6800	30 × 35	3.30	0.30	LKS1J562MESB
	25 × 50	3.65	0.30	LKS1J682MESA
	30 × 40	3.65	0.30	LKS1J682MESB
8200	35 × 30	3.65	0.30	LKS1J682MESB
	30 × 45	4.05	0.30	LKS1J822MESB
10000	35 × 35	4.05	0.30	LKS1J822MESB
	30 × 50	4.40	0.30	LKS1J103MESB
12000	35 × 40	4.40	0.30	LKS1J103MESB
	35 × 45	4.75	0.30	LKS1J123MESB

71V (H2)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
1000	22 × 20	1.40	0.30	LKSH2102MESZ
1200	20 × 25	1.60	0.30	LKSH2122MESY
	25 × 20	1.60	0.30	LKSH2122MESA
1500	20 × 30	1.80	0.30	LKSH2152MESY
	22 × 25	1.80	0.30	LKSH2152MESZ
1800	20 × 35	2.00	0.30	LKSH2182MESY
	22 × 30	2.00	0.30	LKSH2182MESZ
2200	30 × 20	2.00	0.30	LKSH2182MESB
	20 × 40	2.25	0.30	LKSH2222MESY
2700	22 × 35	2.25	0.30	LKSH2222MESZ
	25 × 25	2.25	0.30	LKSH2222MESA
3300	20 × 45	2.50	0.30	LKSH2272MESY
	22 × 40	2.50	0.30	LKSH2272MESZ
	25 × 30	2.50	0.30	LKSH2272MESA
3900	35 × 20	2.50	0.30	LKSH2272MESB
	20 × 50	2.70	0.30	LKSH2332MESY
	22 × 45	2.70	0.30	LKSH2332MESZ
	25 × 35	2.70	0.30	LKSH2332MESA
4700	30 × 25	2.70	0.30	LKSH2332MESB
	22 × 50	3.05	0.30	LKSH2392MESZ
	25 × 40	3.05	0.30	LKSH2392MESA
5600	30 × 30	3.05	0.30	LKSH2392MESB
	35 × 25	3.05	0.30	LKSH2392MESB
6800	25 × 45	3.40	0.30	LKSH2472MESA
	30 × 35	3.40	0.30	LKSH2472MESB
	35 × 30	3.40	0.30	LKSH2472MESB
8200	25 × 50	3.75	0.30	LKSH2562MESA
	30 × 40	3.75	0.30	LKSH2562MESB
10000	30 × 45	4.05	0.30	LKSH2682MESB
	35 × 35	4.05	0.30	LKSH2682MESB
12000	30 × 50	4.35	0.30	LKSH2822MESB
	35 × 40	4.35	0.30	LKSH2822MESB
15000	35 × 45	4.60	0.30	LKSH2103MESB

80V (1K)				
Cap. (μF)	Size φD × L (mm)	Rated ripple (Arms)	tan δ	Code
820	22 × 20	1.40	0.25	LKS1K821MESZ
1000	20 × 25	1.55	0.25	LKS1K102MESY
	25 × 20	1.55	0.25	LKS1K102MESA
1200	20 × 30	1.70	0.25	LKS1K122MESY
	22 × 25	1.70	0.25	LKS1K122MESZ
1500	30 × 20	1.95	0.25	LKS1K152MESB
1800	20 × 35	2.25	0.25	LKS1K182MESY
	22 × 30	2.25	0.25	LKS1K182MESZ
	25 × 25	2.25	0.25	LKS1K182MESA
2200	20 × 45	2.45	0.25	LKS1K222MESY
	22 × 35	2.45	0.25	LKS1K222MESZ
	25 × 30	2.45	0.25	LKS1K222MESA
	35 × 20	2.45	0.25	LKS1K222MESB
2700	20 × 50	2.70	0.25	LKS1K272MESY
	22 × 45	2.70	0.25	LKS1K272MESZ
	25 × 35	2.70	0.25	LKS1K272MESA
3300	30 × 25	2.70	0.25	LKS1K272MESB
	22 × 50	3.00	0.25	LKS1K332MESZ
	25 × 40	3.00	0.25	LKS1K332MESA
	30 × 30	3.00	0.25	LKS1K332MESB
3900	35 × 25	3.00	0.25	LKS1K332MESB
	25 × 45	3.30	0.25	LKS1K392MESA
4700	30 × 35	3.30	0.25	LKS1K392MESB
	25 × 50	3.60	0.25	LKS1K472MESA
5600	30 × 40	3.60	0.25	LKS1K472MESB
	35 × 30	3.60	0.25	LKS1K472MESB
	30 × 45	3.95	0.25	LKS1K562MESB
6800	35 × 35	3.95	0.25	LKS1K562MESB
	30 × 50	4.25	0.25	LKS1K682MESB
8200	35 × 40	4.25	0.25	LKS1K682MESB
	35 × 45	4.55	0.25	LKS1K822MESB
10000	35 × 50	4.70	0.25	LKS1K103MESB

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

CAT.8100C

KS series

■ Dimensions

100V (2A)				
Cap. (μ F)	Size ϕ D \times L (mm)	Rated ripple (Arms)	$\tan \delta$	Code
680	20 \times 25	1.60	0.25	LKS2A681MESY
	25 \times 20	1.60	0.25	LKS2A681MESA
820	20 \times 30	1.75	0.25	LKS2A821MESY
	22 \times 25	1.75	0.25	LKS2A821MESZ
1000	20 \times 35	1.95	0.25	LKS2A102MESY
	22 \times 30	1.95	0.25	LKS2A102MESZ
	25 \times 25	1.95	0.25	LKS2A102MESA
	30 \times 20	1.95	0.25	LKS2A102MESB
1200	20 \times 40	2.15	0.25	LKS2A122MESY
	22 \times 35	2.15	0.25	LKS2A122MESZ
1500	20 \times 45	2.45	0.25	LKS2A152MESY
	22 \times 40	2.45	0.25	LKS2A152MESZ
	25 \times 30	2.45	0.25	LKS2A152MESA
	30 \times 25	2.45	0.25	LKS2A152MESB
	35 \times 20	2.45	0.25	LKS2A152MESB
1800	20 \times 50	2.70	0.25	LKS2A182MESY
	22 \times 45	2.70	0.25	LKS2A182MESZ
	25 \times 35	2.70	0.25	LKS2A182MESA
	30 \times 30	2.70	0.25	LKS2A182MESB
2200	22 \times 50	2.95	0.25	LKS2A222MESZ
	25 \times 40	2.95	0.25	LKS2A222MESA
	35 \times 25	2.95	0.25	LKS2A222MESB
2700	25 \times 50	3.20	0.25	LKS2A272MESA
	30 \times 35	3.20	0.25	LKS2A272MESB
	35 \times 30	3.20	0.25	LKS2A272MESB
3300	30 \times 40	3.60	0.25	LKS2A332MESB
	35 \times 35	3.60	0.25	LKS2A332MESB
3900	30 \times 50	4.00	0.25	LKS2A392MESB
	35 \times 40	4.00	0.25	LKS2A392MESB
4700	35 \times 45	4.30	0.25	LKS2A472MESB
5600	35 \times 50	4.70	0.25	LKS2A562MESB

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