



## **Development of LBK Series of Lead Type Aluminum Electrolytic Capacitors Realizing up to 44% Larger Capacitance for Automobile SRS Airbags**

Nippon Chemi-Con has developed the LBK Series of large capacitance lead type aluminum electrolytic capacitors for SRS airbags installed in automobiles.

The basic role of an aluminum electrolytic capacitor for airbag equipment is that of a backup power supply for actuating the airbag when the power supply from the battery is cut off due to an accident. Recently, the advent of multiple channels in airbag systems has increased the electric power necessary for actuating an airbag, and aluminum electrolytic capacitors with larger capacitance are being demanded. In addition, anticipating that airbag control units will become smaller and electronic components will be mounted more densely, we have developed and commercialized a series of products with capacitance that exceed the current LBG Series of aluminum electrolytic capacitors for airbag systems.



### **Technical Advantages:**

In order to realize larger capacitance, the LBK Series uses a high magnification aluminum electrode foil with a larger capacitance per unit area compared to conventional products. In addition, the element storage efficiency has been improved by introducing features such as new electrolyte paper, thereby greatly increasing the foil area. This has led to a 44% larger capacitance compared to the existing series.

### **Specifications:**

- Category temperature range: -55 ~ +105
- Rated voltage range: 25 ~ 35V
- Capacitance range: 2500 ~ 14000µF
- Capacitance tolerance: 0 ~ +30%
- Case size: φ16×20 ~ 40Lmm / φ18×20 ~ 40Lmm
- Endurance: 5000 hours at 105

### **Mass Production Schedule:**

Mass production of the LBK Series is scheduled to start in July this year.

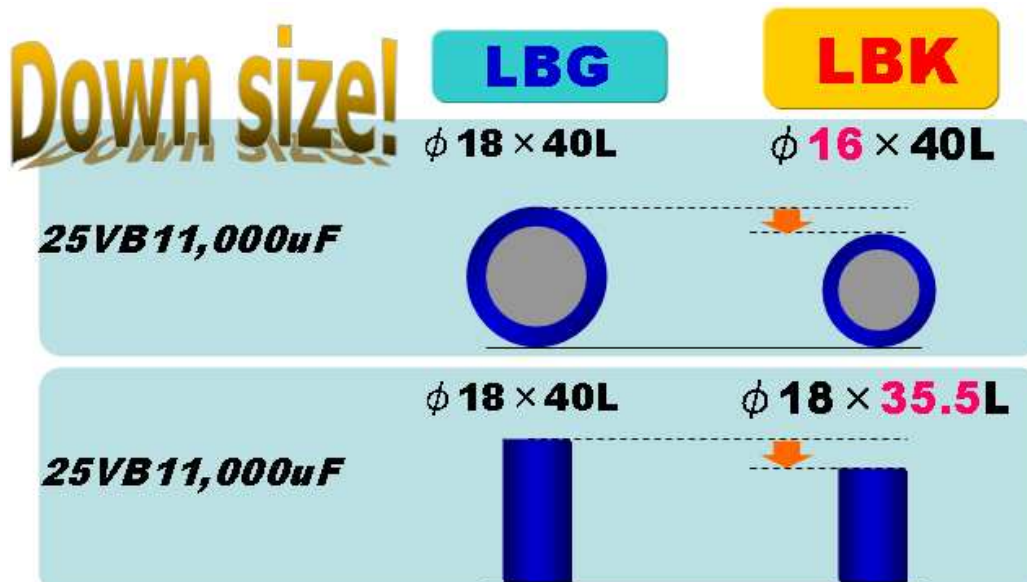
## Features:

### Capacitance Comparison Chart for LBG Series and LBK Series

Unit: [ $\mu$ F]

Rated Voltage	Case Size	LBG Series (Existing Product)	LBK Series <b>NEW</b>	Increase Rate
25 V	$\phi 16 \times 20L$	3,000	<b>4,200</b>	1.40
	$\phi 16 \times 25L$	4,200	<b>5,900</b>	1.40
	$\phi 16 \times 31.5L$	5,600	<b>8,000</b>	1.43
	$\phi 16 \times 35.5L$	6,600	<b>9,500</b>	1.44
	$\phi 16 \times 40L$	7,800	<b>11,000</b>	1.41
	$\phi 18 \times 20L$	4,200	<b>5,300</b>	1.26
	$\phi 18 \times 25L$	6,000	<b>7,500</b>	1.25
	$\phi 18 \times 31.5L$	7,900	<b>10,000</b>	1.27
	$\phi 18 \times 35.5L$	9,200	<b>11,000</b>	1.20
	$\phi 18 \times 40L$	11,000	<b>14,000</b>	1.27
35 V	$\phi 16 \times 20L$	1,800	<b>2,500</b>	1.39
	$\phi 16 \times 25L$	2,500	<b>3,500</b>	1.40
	$\phi 16 \times 31.5L$	3,400	<b>4,700</b>	1.38
	$\phi 16 \times 35.5L$	4,000	<b>5,600</b>	1.40
	$\phi 16 \times 40L$	4,700	<b>6,600</b>	1.40
	$\phi 18 \times 20L$	2,500	<b>3,100</b>	1.24
	$\phi 18 \times 25L$	3,600	<b>4,500</b>	1.25
	$\phi 18 \times 31.5L$	4,800	<b>6,000</b>	1.25
	$\phi 18 \times 35.5L$	5,600	<b>7,100</b>	1.27
	$\phi 18 \times 40L$	6,700	<b>8,400</b>	1.25

### Comparison of 25V Products with Same Capacitance:



Possible to reduce one size while maintaining the same capacitance