

**LBK** New!  
Series

- Downsizing of LBG series.
- For airbag application and power supply application
- High capacitance, low ESR and good low temperature behavior
- Endurance with ripple current : 5,000 hours at 105°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

**LBK**

↓  
Downsized  
↑  
LBG P218

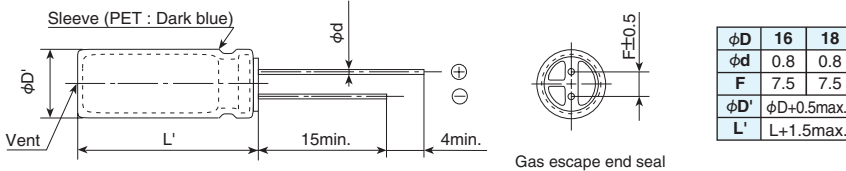


◆ SPECIFICATIONS

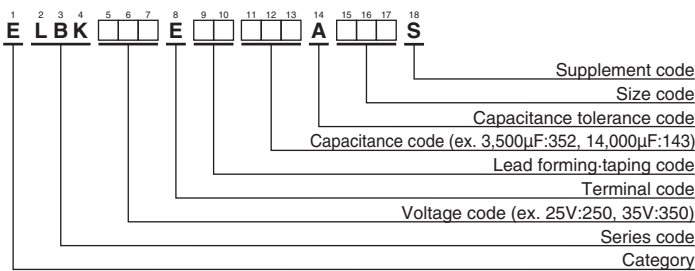
| Items   | Characteristics   |                                      |
|---|---|--------------------------------------|
| <b>Category</b>   | -55 to +105°C   |                                      |
| <b>Temperature Range</b>                                      |   |                                      |
| <b>Rated Voltage Range</b>                                    | 25 & 35V <sub>dc</sub>  |                                      |
| <b>Capacitance Range</b>                                      | 2,500 to 14,000µF (at 20°C, 120Hz)  |                                      |
| <b>Capacitance Tolerance</b>                                  | 0 to +30% (A) (at 20°C, 120Hz)  |                                      |
| <b>Leakage Current</b>  | I=0.01CV<br>Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 2 minutes)   |                                      |
| <b>Dissipation Factor (tan δ)</b>                             | Rated voltage (V <sub>dc</sub> )  | 25V 35V                              |
|   | tan δ (Max.)  | 0.20 0.16                            |
|   | When nominal capacitance exceeds 1,000µF, add 0.02 to the value above for each 1,000µF increase. (at 20°C, 120Hz)   |                                      |
| <b>Low Temperature Characteristics (Max. Impedance Ratio)</b> | Rated voltage (V <sub>dc</sub> )  | 25V 35V                              |
|   | Z(-55°C)/Z(+20°C)   | 3 3                                  |
|   | (at 120Hz)  |                                      |
| <b>Endurance</b>  | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 5,000 hours at 105°C.   |                                      |
|   | Capacitance change  | ≤ ±20% of the initial value          |
|   | D.F. (tan δ)  | ≤200% of the initial specified value |
|   | Leakage current   | ≤ The initial specified value        |
| <b>Shelf Life</b>   | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. |                                      |
|   | Capacitance change  | ≤ ±20% of the initial value          |
|   | D.F. (tan δ)  | ≤200% of the initial specified value |
|   | Leakage current   | ≤ The initial specified value        |

◆ DIMENSIONS [mm]

- Terminal Code : E



◆ PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

**◆STANDARD RATINGS**

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L (mm) | ESR (Ω max./100kHz) |       | Rated ripple current<br>(mA <sub>rms</sub> /105°C, 100kHz) | Part No.           |
|--------------------------|-------------|------------------------|---------------------|-------|--|--------------------|
|                          |             |                        | 20°C                | -40°C |  |                    |
| 25                       | 4,200       | 16 × 20                | 0.033               | 0.095 | 2,250  | ELBK250E□□422AL20S |
|                          | 5,300       | 18 × 20                | 0.029               | 0.082 | 2,500  | ELBK250E□□532AM20S |
|                          | 5,900       | 16 × 25                | 0.024               | 0.073 | 2,600  | ELBK250E□□592AL25S |
|                          | 7,500       | 18 × 25                | 0.022               | 0.063 | 2,800  | ELBK250E□□752AM25S |
|                          | 8,000       | 16 × 31.5              | 0.021               | 0.052 | 3,200  | ELBK250E□□802ALN3S |
|                          | 9,500       | 16 × 35.5              | 0.019               | 0.046 | 3,500  | ELBK250E□□952ALP1S |
|                          | 10,000      | 18 × 31.5              | 0.019               | 0.045 | 3,500  | ELBK250E□□103AMN3S |
|                          | 11,000      | 16 × 40                | 0.017               | 0.040 | 3,800  | ELBK250E□□113AL40S |
|                          | 11,000      | 18 × 35.5              | 0.017               | 0.040 | 3,700  | ELBK250E□□113AMP1S |
| 14,000                   | 18 × 40     | 0.015                  | 0.035               | 4,000 | ELBK250E□□143AM40S   |                    |
| 35                       | 2,500       | 16 × 20                | 0.033               | 0.095 | 2,250  | ELBK350E□□252AL20S |
|                          | 3,100       | 18 × 20                | 0.029               | 0.082 | 2,500  | ELBK350E□□312AM20S |
|                          | 3,500       | 16 × 25                | 0.024               | 0.073 | 2,600  | ELBK350E□□352AL25S |
|                          | 4,500       | 18 × 25                | 0.022               | 0.063 | 2,800  | ELBK350E□□452AM25S |
|                          | 4,700       | 16 × 31.5              | 0.021               | 0.052 | 3,200  | ELBK350E□□472ALN3S |
|                          | 5,600       | 16 × 35.5              | 0.019               | 0.046 | 3,500  | ELBK350E□□562ALP1S |
|                          | 6,000       | 18 × 31.5              | 0.019               | 0.045 | 3,500  | ELBK350E□□602AMN3S |
|                          | 6,600       | 16 × 40                | 0.017               | 0.040 | 3,800  | ELBK350E□□662AL40S |
|                          | 7,100       | 18 × 35.5              | 0.017               | 0.040 | 3,700  | ELBK350E□□712AMP1S |
| 8,400                    | 18 × 40     | 0.015                  | 0.035               | 4,000 | ELBK350E□□842AM40S   |                    |

□□ : Enter the appropriate lead forming or taping code.

**◆RATED RIPPLE CURRENT MULTIPLIERS**

## ● Frequency Multipliers

| Capacitance(μF) | Frequency(Hz) |      |      |      |
|-----------------|---------------|------|------|------|
|                 | 120           | 1k   | 10k  | 100k |
| 2,500 to 3,500  | 0.75          | 0.90 | 0.95 | 1.00 |
| 4,200 to 14,000 | 0.85          | 0.95 | 0.98 | 1.00 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.