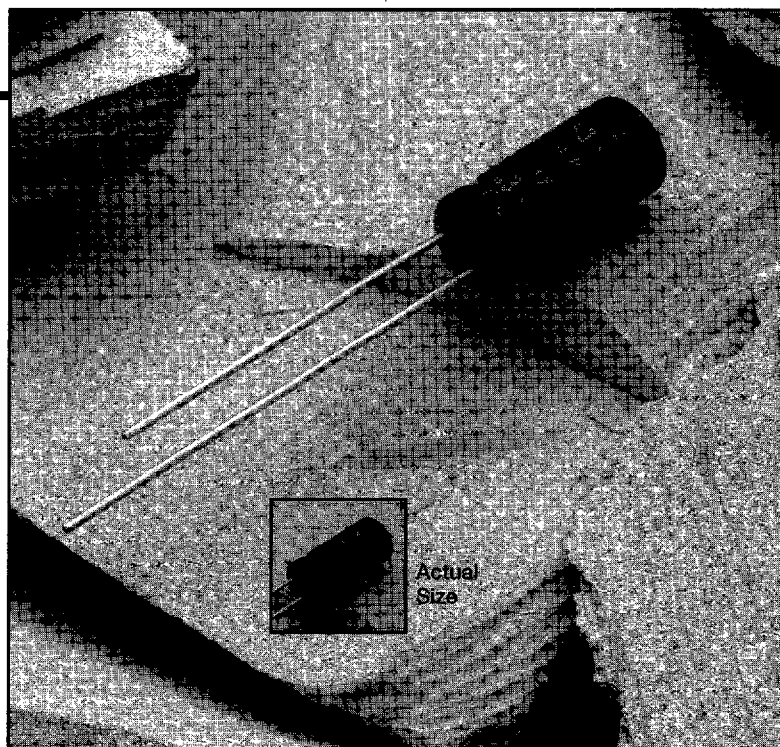


# LXA/LX Series



LXA/LX  
MINIATURE - 105°C

- Miniature
- Long Life
- Solvent Proof
- +105°C  
Maximum  
Temperature



The LXA/LX series capacitors are designed for long life and for use at high frequencies. The rated lifetime for this series is 5,000 or 7,000 hours at 105°C depending on rated voltage and case size. Typical applications in which these capacitors may be used are high reliability and industrial control equipment along with the filter circuits of switching power supplies.

The LXA/LX series capacitors were developed to withstand HCFC cleaning agents for five minutes by ultrasonic, vapor or immersion. This solvent proof design allows all circuit board components to be cleaned together, at the same time, without resorting to more expensive epoxy end-sealed capacitors. Refer to the Mini-Glossary for recommended cleaning conditions.

## Summary of Specifications

- Radial lead terminals.
- Capacitance range: 0.47 to 4,700 $\mu$ F for LXA; 0.47 to 68 $\mu$ F for LX.
- Voltage range: 10 to 63VDC for LXA; 100 to 250VDC for LX.
- Operating temperature range: -55°C to +105°C for LXA; -40°C to +105°C for LX.
- Leakage current: 0.01CV or 3 $\mu$ A, whichever is greater, after 2 minutes at +20°C for LXA; 0.01CV+2 $\mu$ A for 100V and 0.04CV+100 $\mu$ A for 160V to 250V after 2 minutes at +20°C for LX.
- Standard capacitance tolerance:  $\pm 20\%$
- Nominal case size (D $\times$ L): 6.3 $\times$ 14mm to 18 $\times$ 40mm for LXA; 8 $\times$ 14mm to 18 $\times$ 40mm for LX.
- Rated lifetime: 5,000 or 7,000 hours at +105°C depending on case size for LXA; 5,000 hours at +105°C for LX.

## LXA/LX Specifications

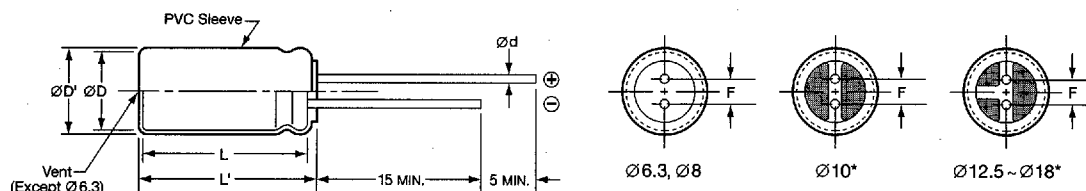
**LXA/LX**  
**MINIATURE - 105°C**

# LXA/LX Series

## Diagram of Dimensions

### VB/Radial Lead

Unit: mm



\*Gas escape end seal for  $\phi 10 \sim \phi 18$

| $\phi D$ | $\phi D'$      | $L'$ (LXA) | $L'$ (LX) | $\phi d$ | $F \pm 0.5$ |
|----------|----------------|------------|-----------|----------|-------------|
| 6.3      | $\phi D + 0.5$ | $L + 1.0$  | -         | 0.5      | 2.5         |
| 8        | $\phi D + 0.5$ | $L + 1.0$  | $L + 1.5$ | 0.6      | 3.5         |
| 10       | $\phi D + 0.5$ | $L + 1.0$  | $L + 1.5$ | 0.6      | 5.0         |
| 12.5     | $\phi D + 0.5$ | $L + 1.0$  | $L + 1.5$ | 0.6      | 5.0         |
| 16       | $\phi D + 0.5$ | $L + 1.5$  | $L + 2.0$ | 0.8      | 7.5         |
| 18       | $\phi D + 0.5$ | $L + 1.5$  | $L + 2.0$ | 0.8      | 7.5         |

For optional lead configurations and tape and ammo packaging, refer to the beginning of the Miniature section.

## Part Numbering System for LXA/LX Series When ordering, always specify complete catalog number for LXA/LX Series.

**LXA 63 VB 10R M 6X14 LL**

Lead Length: LL is Standard.

Case Code: See Case Sizes in Tables.

Capacitance Tolerance: M =  $\pm 20\%$

Capacitance Value: Expressed in microfarads. The first two digits are significant figures, and the third digit indicates the number of zeros for capacitance of  $100\mu F$  or more. R indicates the decimal point for capacitance less than  $100\mu F$  (e.g. R10 =  $0.10\mu F$ ; 1R0 =  $1.0\mu F$ ; 10R =  $10\mu F$ ; 101 =  $100\mu F$ ; 102 =  $1,000\mu F$ ; 103 =  $10,000\mu F$ ).

Lead Configuration: VB = Radial Lead Terminals.

DC Rated Voltage: Expressed in Volts (e.g. 63 = 63WVDC).

Series Name: Indicates Basic Capacitor Design.

## LXA Standard Voltage Ratings - VB/Radial Lead

| Rated Voltage (WVDC)       | Capacitance ( $\mu F$ ) | Catalog Part Number | Nominal Case Size* $D \times L$ (mm) | Maximum Impedance ( $\Omega$ ) at +20°C, 100kHz | Maximum Ripple Current (mA rms) at +105°C, 10kHz |
|----------------------------|-------------------------|---------------------|--------------------------------------|-------------------------------------------------|--------------------------------------------------|
| 10 Volts<br>13 Volts Surge | 47                      | LXA10VB47RM6X14LL   | 6.3 x 14                             | 1.65                                            | 140                                              |
|                            | 100                     | LXA10VB101M6X14LL   | 6.3 x 14                             | 1.65                                            | 140                                              |
|                            | 220                     | LXA10VB221M8X14LL   | 8 x 14                               | 0.90                                            | 210                                              |
|                            | 330                     | LXA10VB331M10X16LL  | 10 x 16                              | 0.42                                            | 370                                              |
|                            | 470                     | LXA10VB471M10X16LL  | 10 x 16                              | 0.42                                            | 370                                              |
|                            | 1,000                   | LXA10VB102M12X20LL  | 12.5 x 20                            | 0.16                                            | 720                                              |
|                            | 2,200                   | LXA10VB222M16X25LL  | 16 x 25                              | 0.08                                            | 1,220                                            |
|                            | 3,300                   | LXA10VB332M16X31LL  | 16 x 31.5                            | 0.07                                            | 1,400                                            |
|                            | 4,700                   | LXA10VB472M16X35LL  | 16 x 35.5                            | 0.06                                            | 1,550                                            |

\*The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.

# LXA/LX Series

## LXA Standard Voltage Ratings - VB/Radial Lead

| Rated Voltage (VWDC)              | Capacitance (μF) | Catalog Part Number | Nominal Case Size* D × L (mm) | Maximum Impedance (Ω) at +20°C, 100kHz | Maximum Ripple Current (mA rms) at +105°C, 10kHz |
|-----------------------------------|------------------|---------------------|-------------------------------|----------------------------------------|--------------------------------------------------|
| <b>16 Volts</b><br>20 Volts Surge | 33               | LXA16VB33RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 47               | LXA16VB47RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 100              | LXA16VB101M6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 220              | LXA16VB221M8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 330              | LXA16VB331M10X16LL  | 10 × 16                       | 0.42                                   | 370                                              |
|                                   | 470              | LXA16VB471M10X20LL  | 10 × 20                       | 0.28                                   | 490                                              |
|                                   | 1,000            | LXA16VB102M12X25LL  | 12.5 × 25                     | 0.13                                   | 780                                              |
|                                   | 2,200            | LXA16VB222M16X25LL  | 16 × 25                       | 0.08                                   | 1,220                                            |
|                                   | 3,300            | LXA16VB332M16X35LL  | 16 × 35.5                     | 0.06                                   | 1,550                                            |
| <b>25 Volts</b><br>32 Volts Surge | 4,700            | LXA16VB472M18X35LL  | 18 × 35.5                     | 0.055                                  | 1,690                                            |
|                                   | 22               | LXA25VB22RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 33               | LXA25VB33RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 47               | LXA25VB47RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 100              | LXA25VB101M8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 220              | LXA25VB221M10X16LL  | 10 × 16                       | 0.42                                   | 370                                              |
|                                   | 330              | LXA25VB331M10X20LL  | 10 × 20                       | 0.28                                   | 490                                              |
|                                   | 470              | LXA25VB471M12X20LL  | 12.5 × 20                     | 0.16                                   | 720                                              |
|                                   | 1,000            | LXA25VB102M16X25LL  | 16 × 25                       | 0.08                                   | 1,220                                            |
| <b>35 Volts</b><br>44 Volts Surge | 2,200            | LXA25VB222M16X35LL  | 16 × 35.5                     | 0.06                                   | 1,550                                            |
|                                   | 3,300            | LXA25VB332M18X40LL  | 18 × 40                       | 0.05                                   | 1,800                                            |
|                                   | 4.7              | LXA35VB47RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 10               | LXA35VB10RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 22               | LXA35VB22RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 33               | LXA35VB33RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 47               | LXA35VB47RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 100              | LXA35VB101M8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 220              | LXA35VB221M10X20LL  | 10 × 20                       | 0.28                                   | 490                                              |
| <b>50 Volts</b><br>63 Volts Surge | 330              | LXA35VB331M12X20LL  | 12.5 × 20                     | 0.16                                   | 720                                              |
|                                   | 470              | LXA35VB471M12X20LL  | 12.5 × 20                     | 0.16                                   | 720                                              |
|                                   | 1,000            | LXA35VB102M16X25LL  | 16 × 25                       | 0.08                                   | 1,220                                            |
|                                   | 2,200            | LXA35VB222M18X35LL  | 18 × 35.5                     | 0.055                                  | 1,690                                            |
|                                   | 0.47             | LXA50VBR47M6X14LL   | 6.3 × 14                      | 4.50                                   | 140                                              |
|                                   | 1.0              | LXA50VB1R0M6X14LL   | 6.3 × 14                      | 2.60                                   | 140                                              |
|                                   | 2.2              | LXA50VB2R2M6X14LL   | 6.3 × 14                      | 1.80                                   | 140                                              |
|                                   | 3.3              | LXA50VB3R3M6X14LL   | 6.3 × 14                      | 1.80                                   | 140                                              |
|                                   | 4.7              | LXA50VB4R7M6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
| <b>63 Volts</b><br>79 Volts Surge | 10               | LXA50VB10RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 22               | LXA50VB22RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 33               | LXA50VB33RM8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 47               | LXA50VB47RM8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 100              | LXA50VB101M10X16LL  | 10 × 16                       | 0.55                                   | 320                                              |
|                                   | 220              | LXA50VB221M12X20LL  | 12.5 × 20                     | 0.20                                   | 640                                              |
|                                   | 330              | LXA50VB331M12X20LL  | 12.5 × 20                     | 0.20                                   | 640                                              |
|                                   | 470              | LXA50VB471M16X25LL  | 16 × 25                       | 0.09                                   | 1,150                                            |
|                                   | 1,000            | LXA50VB102M16X31LL  | 16 × 31.5                     | 0.07                                   | 1,400                                            |
| <b>63 Volts</b><br>79 Volts Surge | 4.7              | LXA63VB47RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 10               | LXA63VB10RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 22               | LXA63VB22RM6X14LL   | 6.3 × 14                      | 1.65                                   | 140                                              |
|                                   | 33               | LXA63VB33RM8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 47               | LXA63VB47RM8X14LL   | 8 × 14                        | 0.90                                   | 210                                              |
|                                   | 100              | LXA63VB101M10X20LL  | 10 × 20                       | 0.37                                   | 420                                              |
|                                   | 220              | LXA63VB221M12X20LL  | 12.5 × 20                     | 0.20                                   | 640                                              |
|                                   | 330              | LXA63VB331M12X25LL  | 12.5 × 25                     | 0.16                                   | 720                                              |
|                                   | 470              | LXA63VB471M16X25LL  | 16 × 25                       | 0.09                                   | 1,150                                            |
| <b>63 Volts</b><br>79 Volts Surge | 1,000            | LXA63VB102M18X35LL  | 18 × 35.5                     | 0.055                                  | 1,690                                            |

\* The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.

LXA/LX  
MINIATURE - 105°C

# LXA/LX Series

## LX Standard Voltage Ratings - VB/Radial Lead

| Rated Voltage (WVDC)                | Capacitance (μF) | Catalog Part Number | Nominal Case Size* D × L (mm) | Maximum Impedance (Ω) at |               | Maximum Ripple Current (mA rms) at +105°C, 10kHz |
|-------------------------------------|------------------|---------------------|-------------------------------|--------------------------|---------------|--------------------------------------------------|
|                                     |                  |                     |                               | +20°C, 100kHz            | -10°C, 100kHz |                                                  |
| <b>100 Volts</b><br>125 Volts Surge | 0.47             | LX100VBR47M8X14LL   | 8 × 14                        | 35.0                     | 105.0         | 30                                               |
|                                     | 1.0              | LX100VB1R0M8X14LL   | 8 × 14                        | 18.0                     | 54.0          | 50                                               |
|                                     | 2.2              | LX100VB2R2M8X14LL   | 8 × 14                        | 9.62                     | 28.8          | 60                                               |
|                                     | 3.3              | LX100VB3R3M8X14LL   | 8 × 14                        | 8.57                     | 25.7          | 70                                               |
|                                     | 4.7              | LX100VB4R7M8X14LL   | 8 × 14                        | 6.43                     | 19.3          | 80                                               |
|                                     | 10               | LX100VB10RM10X20LL  | 10 × 20                       | 2.99                     | 8.97          | 230                                              |
|                                     | 22               | LX100VB22RM12X20LL  | 12.5 × 20                     | 1.47                     | 4.41          | 250                                              |
|                                     | 33               | LX100VB33RM12X25LL  | 12.5 × 25                     | 1.00                     | 3.00          | 330                                              |
|                                     | 47               | LX100VB47RM16X25LL  | 16 × 25                       | 0.69                     | 2.07          | 440                                              |
| <b>160 Volts</b><br>200 Volts Surge | 10               | LX160VB10RM12X20LL  | 12.5 × 20                     | 3.5                      | 10.0          | 130                                              |
|                                     | 22               | LX160VB22RM16X25LL  | 16 × 25                       | 1.8                      | 4.8           | 250                                              |
|                                     | 33               | LX160VB33RM16X25LL  | 16 × 25                       | 1.7                      | 4.5           | 320                                              |
|                                     | 47               | LX160VB47RM16X31LL  | 16 × 31.5                     | 1.1                      | 2.9           | 400                                              |
|                                     | 68               | LX160VB68RM18X35LL  | 18 × 35.5                     | 0.9                      | 1.9           | 510                                              |
| <b>200 Volts</b><br>250 Volts Surge | 1.0              | LX200VB1R0M10X16LL  | 10 × 16                       | 18.0                     | 70.0          | 30                                               |
|                                     | 2.2              | LX200VB2R2M10X16LL  | 10 × 16                       | 16.0                     | 65.0          | 40                                               |
|                                     | 3.3              | LX200VB3R3M10X16LL  | 10 × 16                       | 9.2                      | 32.0          | 50                                               |
|                                     | 4.7              | LX200VB4R7M10X20LL  | 10 × 20                       | 4.7                      | 14.0          | 80                                               |
|                                     | 10               | LX200VB10RM12X20LL  | 12.5 × 20                     | 2.6                      | 7.6           | 140                                              |
|                                     | 22               | LX200VB22RM16X25LL  | 16 × 25                       | 1.9                      | 5.0           | 250                                              |
|                                     | 33               | LX200VB33RM16X31LL  | 16 × 31.5                     | 1.2                      | 3.0           | 330                                              |
|                                     | 47               | LX200VB47RM18X35LL  | 18 × 35.5                     | 1.0                      | 2.5           | 430                                              |
|                                     | 68               | LX200VB68RM18X40LL  | 18 × 40                       | 0.7                      | 1.8           | 520                                              |
| <b>250 Volts</b><br>300 Volts Surge | 1.0              | LX250VB1R0M10X16LL  | 10 × 16                       | 20.0                     | 80.0          | 30                                               |
|                                     | 2.2              | LX250VB2R2M10X16LL  | 10 × 16                       | 18.0                     | 70.0          | 40                                               |
|                                     | 3.3              | LX250VB3R3M10X20LL  | 10 × 20                       | 9.0                      | 27.0          | 60                                               |
|                                     | 4.7              | LX250VB4R7M12X20LL  | 12.5 × 20                     | 5.0                      | 15.0          | 90                                               |
|                                     | 10               | LX250VB10RM12X25LL  | 12.5 × 25                     | 2.5                      | 7.0           | 150                                              |
|                                     | 22               | LX250VB22RM16X31LL  | 16 × 31.5                     | 1.8                      | 4.8           | 260                                              |
|                                     | 33               | LX250VB33RM16X35LL  | 16 × 35.5                     | 1.0                      | 2.8           | 340                                              |
|                                     | 47               | LX250VB47RM18X40LL  | 18 × 40                       | 0.8                      | 2.0           | 440                                              |

\*The case sizes in table are with no sleeve, refer to diagram for case sizes with sleeve.

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