

# Aluminum Electrolytic Capacitors

## 105°C 8000~10000Hrs

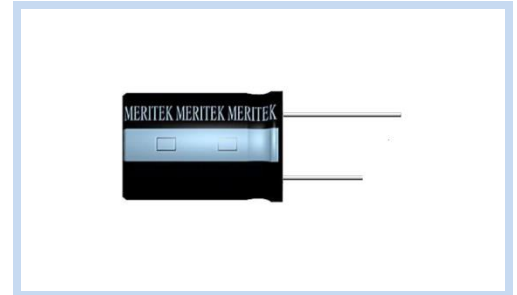
RFL Series

MERITEK

### FEATURE

- Operating Temperature: -40°C ~ +105°C
- High Ripple Current, Long Life Series
- Suitable for Electronic Ballast, Adaptor And Switching Power
- Load Life

|      |         |          |
|------|---------|----------|
| Dia  | =10mm   | ≥12.5mm  |
| Life | 8000hrs | 10000hrs |



### SPECIFICATIONS

| Item  | Characteristic  |                           |          |                |   |      |      |
|---|---|---------------------------|----------|----------------|---|------|------|
| Operation Temperature                         | -40°C ~ +105°C  |                           |          | -25°C ~ +105°C |   |      |      |
| Rated Working Voltage                         | 160 ~ 400VDC  |                           |          | 450VDC         |   |      |      |
| Capacitance Tolerance                         | ±20% (M); 120Hz 20°C  |                           |          |                |   |      |      |
| Leakage Current at 20°C                       | $I \leq 0.06CV + 10 (\mu A)$<br>*Whichever is greater after 2 minutes   |                           |          | I:             | Leakage Current ( $\mu A$ )   |      |      |
|   |   |                           |          | C:             | Capacitance ( $\mu F$ )   |      |      |
|   |   |                           |          | V:             | Working Voltage (V)   |      |      |
| Surge Voltage at 20°C                         | Rated Voltage (V)   | 160                       | 200      | 250            | 350   | 400  | 450  |
|   | Surge Voltage (V)   | 200                       | 250      | 300            | 400   | 450  | 500  |
| Dissipation Factor-tan $\delta$ At 120Hz 20°C | Rated Voltage (V)   | 160                       | 200      | 250            | 350   | 400  | 450  |
|   | tan $\delta$ max  | 0.15                      | 0.15     | 0.15           | 0.24  | 0.24 | 0.24 |
| Low Temperature Stability                     | Rated Voltage (V)   | 160 ~ 250                 |          | 350 ~ 400      |   | 450  |      |
|   | -25°C / +20°C   | 3                         |          | 6              |   | 6    |      |
|   | -40°C / +20°C   | 4                         |          | 6              |   | --   |      |
|   | Impedance ratio at 120Hz  |                           |          |                |   |      |      |
| Load Life                                     | Capacitance Change  | ≤ ±20% of initial value   |          |                | After working hours application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage) |      |      |
|   | Dissipation Factor  | ≤ 200% of initial value   |          |                |   |      |      |
|   | Leakage current   | ≤ initial specified value |          |                |   |      |      |
|   | Dia   | =10mm                     | ≥12.5mm  |                |   |      |      |
|   | Life  | 8000hrs                   | 10000hrs |                |   |      |      |
| Shelf Life                                    | At +105°C no voltage application after 1000 hours. the capacitors shall meet the limits for load life characteristics. (With voltage treatment) |                           |          |                |   |      |      |

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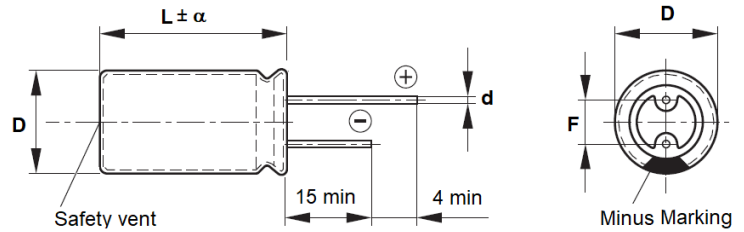
RFL Series

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### DIMENSION

Unit: mm

| D+0.5(max) | 10  | 12.5 | 16  | 18  |
|------------|-----|------|-----|-----|
| F±0.5      | 5.0 | 5.0  | 7.5 | 7.5 |
| d±0.05     | 0.6 | 0.6  | 0.8 | 0.8 |
| α          | 1.5 | 2.0  | 2.0 | 2.0 |



### RIPPLE CURRENT COEFFICIENTS

| Working Voltage | Frequency Coefficient |      |       |        |
|-----------------|-----------------------|------|-------|--------|
|                 | 120Hz                 | 1KHz | 10KHz | 100KHz |
| 160~450V        | 0.50                  | 0.80 | 0.90  | 1.00   |

| Temperature Coefficient |        |
|-------------------------|--------|
| °C                      | Factor |
| 65°C                    | 1.80   |
| 75°C                    | 1.65   |
| 85°C                    | 1.50   |
| 95°C                    | 1.25   |
| 105°C                   | 1.00   |

### CASE SIZE AND MAX RIPPLE CURRENT

| Capacitance |      | 160VDC (2C) |         | 200VDC (2D) |         | 250VDC (2E) |         |
|-------------|------|-------------|---------|-------------|---------|-------------|---------|
|             |      | DxL         | RC      | DxL         | RC      | DxL         | RC      |
| μF          | Code | (mm)        | mA(rms) | (mm)        | mA(rms) | (mm)        | mA(rms) |
| 10          | 100  | 10x16       | 250     | 10x16       | 250     | 10x20       | 280     |
| 22          | 220  | 10x20       | 500     | 10x20       | 500     | 12.5x20     | 600     |
| 33          | 330  | 10x20       | 500     | 12.5x20     | 600     | 12.5x20     | 600     |
| 47          | 470  | 12.5x20     | 660     | 12.5x20     | 660     | 12.5x25     | 720     |
|             |      |             |         |             |         | 16x20       | 720     |
| 68          | 680  | 12.5x25     | 760     | 12.5x25     | 760     | 16x25       | 920     |
|             |      | 16x20       | 760     | 16x20       | 760     | 18x20       | 920     |
| 100         | 101  | 16x25       | 1120    | 16x25       | 1120    | 16x32       | 1200    |
|             |      | 18x20       | 1120    | 18x20       | 1120    | 18x25       | 1200    |
| 150         | 151  | 16x32       | 1360    | 16x32       | 1360    | 18x32       | 1500    |
|             |      | 18x25       | 1360    | 18x25       | 1360    |             |         |
| 220         | 221  | 16x32       | 1400    | 18x32       | 1700    | --          | --      |
|             |      | 18x25       | 1400    |             |         |             |         |
| Capacitance |      | 350VDC (2V) |         | 400VDC (2G) |         | 450VDC (2W) |         |
|             |      | DxL         | RC      | DxL         | RC      | DxL         | RC      |
| μF          | Code | (mm)        | mA(rms) | (mm)        | mA(rms) | (mm)        | mA(rms) |
| 6.8         | 6R8  | 10x16       | 220     | 10x16       | 220     | 10x20       | 150     |
| 10          | 100  | 10x20       | 280     | 10x20       | 280     | 12.5x20     | 320     |
| 22          | 220  | 12.5x20     | 350     | 12.5x25     | 430     | 16x25       | 560     |
|             |      |             |         | 16x20       | 430     | 18x20       | 560     |
| 33          | 330  | 16x20       | 500     | 16x25       | 640     | 16x32       | 700     |
|             |      |             |         | 18x20       | 640     | 18x25       | 700     |
| 47          | 470  | 16x25       | 660     | 16x32       | 840     | 18x32       | 880     |
|             |      | 18x20       | 660     | 18x25       | 840     |             |         |
| 68          | 680  | 16x32       | 850     | 18x32       | 1000    | 18x36       | 1150    |
|             |      | 18x25       | 850     |             |         |             |         |

Note:

1. Max ripple current :mA(rms) at 105°C. 100KHz

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## 105°C 8000~10000Hrs

RFL Series

**MERITEK**

### PART NUMBERING SYSTEM

RFL   2D   101   M   L   250   A   F  
 (1)   (2)   (3)   (4)   (5)   (6)   (7)   (8)

| No  | Item               | Code | Description                      | Series Reference                                |
|-----|--------------------|------|----------------------------------|---|
| (1) | Meritek Series     | RFL  | Aluminum Electrolytic Capacitors | High Ripple Current, 10000Hrs 105°C             |
| (2) | Rated Voltage Code | 2D   | 200V:200V                        | DC working voltage, See Table Below             |
| (3) | Capacitance        | 101  | 101:100µF                        | First two digit: significant, Third: Multiplier |
| (4) | Tolerance          | M    | M: ± 20%                         | -20% ~ +20%                                     |
| (5) | Case Diameter Code | L    | L: 16 mm                         | See Table Below                                 |
| (6) | Case Height        | 250  | 250: 25.0 mm                     | Third digit denotes the first decimal place     |
| (7) | Package            | A    | A: Tape & Ammo                   | R: Tape & Reel, Blank : Bulk                    |
| (8) | Taping Pitch Code  | F    | F: 7.5 mm                        | See Table Below, Blank: Bulk                    |

| Voltage | 4  | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 500 |
|---------|----|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| Code    | 0G | 0J  | 1A | 1C | 1E | 1V | 1H | 1J | 2A  | 2C  | 2D  | 2E  | 2V  | 2G  | 2W  | 2H  |

| Diameter | 4 | 5 | 6.3 | 8 | 10 | 12.5 | 14.5 | 16 | 18 | 20 | 22 | 25 |
|----------|---|---|-----|---|----|------|------|----|----|----|----|----|
| Code     | D | E | F   | H | J  | K    | U    | L  | M  | N  | P  | Q  |

| Pitch | 1.5 | 2 | 2.5 | 3.5 | 5 | 7.5 |
|-------|-----|---|-----|-----|---|-----|
| Code  | A   | B | C   | D   | E | F   |

### LEGACY PART NUMBERING SYSTEM

RFL   200V   101   M   TA   1625  
 (1)   (2)   (3)   (4)   (5)   (6)

| No   | (1)            | (2)           | (3)         | (4)       | (5)     | (6)       |
|------|----------------|---------------|-------------|-----------|---------|-----------|
| Item | Meritek Series | Rated Voltage | Capacitance | Tolerance | Package | Case Size |

\*Specifications subject to change without notice.