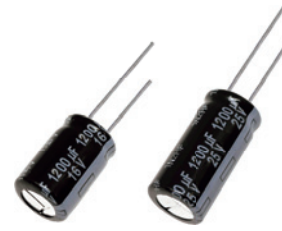


## Radial Lead Type

Series : **FS** Type : **A**



### Features

- Low ESR, Miniaturized (1 size smaller than series FR)
- Endurance : 105 °C 5000 h to 10000 h
- RoHS compliant

### Country of origin

- Malaysia

### Specifications

|   |  |   |      |      |      |      |      |      |      |      |                        |
|---|--|---|------|------|------|------|------|------|------|------|------------------------|
| Category temperature range                            | -40 °C to +105 °C  |   |      |      |      |      |      |      |      |      |                        |
| Rated voltage range                                   | 6.3 V.DC to 100 V.DC   |   |      |      |      |      |      |      |      |      |                        |
| Capacitance range                                     | 27 µF to 10000 µF  |   |      |      |      |      |      |      |      |      |                        |
| Capacitance tolerance                                 | ±20 % (120 Hz/+20 °C)  |   |      |      |      |      |      |      |      |      |                        |
| Leakage current                                       | I ≤ 0.01 CV (µA) After 2 minutes   |   |      |      |      |      |      |      |      |      |                        |
| Dissipation factor (tan δ)                            | V.DC   | 6.3   | 10   | 16   | 25   | 35   | 50   | 63   | 80   | 100  | (max.) (120 Hz/+20 °C) |
|   | tan δ  | 0.22  | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 |                        |
| Add 0.02 per 1000 µF for products of 1000 µF or more. |  |   |      |      |      |      |      |      |      |      |                        |
| Endurance   | After following life test with DC voltage and +105 °C±2 °C ripple current value applied. (The sum of DC and ripple peak voltage shall not exceed the rated working voltage) when the capacitors are restored to 20 °C, the capacitors shall meet the limits specified below. |   |      |      |      |      |      |      |      |      |                        |
|   | Duration<br>φ5×11/ φ6.3×11.2 : 5000 hours, φ8×11.5/ φ10×12.5 : 6000 hours<br>φ8×15/ φ10×16 : 8000 hours, φ8×20 : 9000 hours<br>φ10×20 to φ10×25/ φ12.5×20 to φ12.5×35/ φ16×20 to φ16×25 : 10000 hours  |   |      |      |      |      |      |      |      |      |                        |
|   | Capacitance change   | Within ±25 % of the initial value (6.3 V.DC to 10 V.DC : ±30 %) |      |      |      |      |      |      |      |      |                        |
|   | tan δ  | ≤ 200 % of the initial limit                                    |      |      |      |      |      |      |      |      |                        |
| Shelf life  | DC leakage current   | Within the initial limit  |      |      |      |      |      |      |      |      |                        |
|   | After storage for 1000 hours at +105 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)  |   |      |      |      |      |      |      |      |      |                        |

### Frequency correction factor for ripple current

| Rated voltage (V.DC) | Capacitance (µF) | Frequency (Hz) |      |      |      |          |
|----------------------|------------------|----------------|------|------|------|----------|
|                      |                  | 60             | 120  | 1 k  | 10 k | 100 k to |
| 6.3 to 100           | 27 to 33         | 0.45           | 0.55 | 0.75 | 0.90 | 1.00     |
|                      | 47 to 330        | 0.60           | 0.70 | 0.85 | 0.95 | 1.00     |
|                      | 390 to 1000      | 0.65           | 0.75 | 0.90 | 0.98 | 1.00     |
|                      | 1200 to 10000    | 0.75           | 0.80 | 0.95 | 1.00 | 1.00     |

### Dimensions

(Unit : mm)

| φD | 5   | 6.3 | 8   | 10  | 12.5       |          | 16  |
|----|-----|-----|-----|-----|------------|----------|-----|
| L  | —   | —   | —   | —   | 12.5 to 25 | 30 to 35 | —   |
| φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6        | 0.8      | 0.8 |
| F  | 2.0 | 2.5 | 3.5 | 5.0 | 5.0        | 5.0      | 7.5 |

## Case size/ Impedance/ Ripple current

| Rated voltage<br>(V.DC)            | 6.3 V.DC to 35 V.DC               |        |                                       | 50 V.DC                           |        |                                       |
|------------------------------------|-----------------------------------|--------|---------------------------------------|-----------------------------------|--------|---------------------------------------|
|                                    | Impedance<br>( $\Omega$ /100 kHz) |        | Ripple current<br>(mA r.m.s./100 kHz) | Impedance<br>( $\Omega$ /100 kHz) |        | Ripple current<br>(mA r.m.s./100 kHz) |
|                                    | +20 °C                            | -10 °C | +105 °C                               | +20 °C                            | -10 °C | +105 °C                               |
| Case size<br>(mm)<br>( $\phi$ D×L) |                                   |        |                                       |                                   |        |                                       |
| 5 × 11                             | 0.300                             | 1.000  | 280                                   | 0.340                             | 1.130  | 250                                   |
| 6.3 × 11.2                         | 0.130                             | 0.430  | 455                                   | –                                 | –      | –                                     |
| 8 × 11.5                           | 0.056                             | 0.168  | 950                                   | –                                 | –      | –                                     |
| 8 × 15                             | 0.041                             | 0.123  | 1240                                  | 0.045                             | 0.135  | 1140                                  |
| 8 × 20                             | 0.030                             | 0.090  | 1560                                  | 0.033                             | 0.099  | 1430                                  |
| 10 × 12.5                          | 0.043                             | 0.114  | 1290                                  | –                                 | –      | –                                     |
| 10 × 16                            | 0.028                             | 0.078  | 1790                                  | –                                 | –      | –                                     |
| 10 × 20                            | 0.020                             | 0.057  | 2180                                  | 0.023                             | 0.069  | 1890                                  |
| 10 × 25                            | 0.018                             | 0.054  | 2470                                  | 0.022                             | 0.066  | 2150                                  |
| 12.5 × 20                          | 0.018                             | 0.045  | 2600                                  | –                                 | –      | –                                     |
| 12.5 × 25                          | 0.015                             | 0.038  | 3190                                  | 0.018                             | 0.045  | 2660                                  |
| 12.5 × 30                          | 0.013                             | 0.033  | 3630                                  | 0.016                             | 0.040  | 3160                                  |
| 12.5 × 35                          | 0.012                             | 0.030  | 3750                                  | 0.014                             | 0.035  | 3270                                  |
| 16 × 20                            | 0.017                             | 0.043  | 3300                                  | –                                 | –      | –                                     |
| 16 × 25                            | 0.014                             | 0.035  | 3820                                  | 0.016                             | 0.040  | 3320                                  |

| Rated voltage<br>(V.DC)            | 63 V.DC                           |        |                                       | 80 V.DC to 100 V.DC               |        |                                       |
|------------------------------------|-----------------------------------|--------|---------------------------------------|-----------------------------------|--------|---------------------------------------|
|                                    | Impedance<br>( $\Omega$ /100 kHz) |        | Ripple current<br>(mA r.m.s./100 kHz) | Impedance<br>( $\Omega$ /100 kHz) |        | Ripple current<br>(mA r.m.s./100 kHz) |
|                                    | +20 °C                            | -10 °C | +105 °C                               | +20 °C                            | -10 °C | +105 °C                               |
| Case size<br>(mm)<br>( $\phi$ D×L) |                                   |        |                                       |                                   |        |                                       |
| 5 × 11                             | 0.510                             | 2.040  | 175                                   | –                                 | –      | –                                     |
| 6.3 × 11.2                         | –                                 | –      | –                                     | –                                 | –      | –                                     |
| 8 × 11.5                           | –                                 | –      | –                                     | 0.160                             | 0.720  | 490                                   |
| 8 × 15                             | 0.068                             | 0.272  | 741                                   | 0.112                             | 0.504  | 590                                   |
| 8 × 20                             | 0.050                             | 0.200  | 930                                   | 0.096                             | 0.432  | 810                                   |
| 10 × 12.5                          | 0.063                             | 0.252  | 761                                   | 0.112                             | 0.448  | 600                                   |
| 10 × 16                            | 0.045                             | 0.180  | 1073                                  | 0.072                             | 0.288  | 930                                   |
| 10 × 20                            | –                                 | –      | –                                     | 0.054                             | 0.224  | 1120                                  |
| 10 × 25                            | 0.033                             | 0.132  | 1500                                  | 0.044                             | 0.176  | 1200                                  |
| 12.5 × 20                          | 0.033                             | 0.125  | 1582                                  | 0.043                             | 0.135  | 1400                                  |
| 12.5 × 25                          | 0.027                             | 0.092  | 1995                                  | 0.034                             | 0.108  | 1800                                  |
| 12.5 × 30                          | –                                 | –      | –                                     | 0.030                             | 0.099  | 2200                                  |
| 12.5 × 35                          | 0.021                             | 0.071  | 2780                                  | 0.023                             | 0.070  | 2380                                  |
| 16 × 20                            | 0.029                             | 0.093  | 2153                                  | 0.032                             | 0.108  | 1450                                  |
| 16 × 25                            | 0.024                             | 0.074  | 2988                                  | 0.025                             | 0.076  | 2500                                  |

## Characteristics list

| Rated voltage (V.DC) | Cap. (±20 %) (μF) | Case size (mm) |      | Specification                                  |                                  |                   | Lead length (mm) |            |           | Part No.      | Min. Packaging Q'ty  |              |           |
|----------------------|-------------------|----------------|------|--|----------------------------------|-------------------|------------------|------------|-----------|---------------|----------------------|--------------|-----------|
|                      |                   | φD             | L    | Ripple current (100 kHz) (+105 °C) (mA r.m.s.) | Impedance (100 kHz) (+20 °C) (Ω) | Endurance (hours) | Lead dia. φd     | Lead space |           |               | Straight leads (pcs) | Taping (pcs) |           |
|                      |                   |                |      |  |                                  |                   |                  | Straight   | Taping *B |               |                      |              | Taping *H |
| 6.3                  | 220               | 5              | 11   | 280  | 0.300                            | 5000              | 0.5              | 2.0        | 5.0       | 2.5           | EEUFS0J221( )        | 200          | 2000      |
|                      | 1500              | 8              | 15   | 1240   | 0.041                            | 8000              | 0.6              | 3.5        | 5.0       |               | EEUFS0J152L( )       | 200          | 1000      |
|                      |                   | 10             | 12.5 | 1290   | 0.043                            | 6000              | 0.6              | 5.0        | 5.0       |               | EEUFS0J152( )        | 200          | 500       |
|                      | 1800              | 8              | 20   | 1560   | 0.030                            | 9000              | 0.6              | 3.5        | 5.0       |               | EEUFS0J182L( )       | 200          | 1000      |
|                      | 2000              | 8              | 20   | 1560   | 0.030                            | 9000              | 0.6              | 3.5        | 5.0       |               | EEUFS0J202L( )       | 200          | 1000      |
|                      |                   | 10             | 16   | 1790   | 0.028                            | 8000              | 0.6              | 5.0        | 5.0       |               | EEUFS0J202( )        | 200          | 500       |
|                      | 2200              | 10             | 16   | 1790   | 0.028                            | 8000              | 0.6              | 5.0        | 5.0       |               | EEUFS0J222( )        | 200          | 500       |
|                      | 2700              | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS0J272( )        | 200          | 500       |
|                      | 3300              | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS0J332( )        | 200          | 500       |
|                      | 3900              | 10             | 25   | 2470   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS0J392L( )       | 200          | 500       |
|                      | 4700              | 12.5           | 20   | 2600   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS0J472( )        | 200          | 500       |
|                      | 5100              | 12.5           | 25   | 3190   | 0.015                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS0J512( )        | 200          | 500       |
|                      | 5600              | 12.5           | 25   | 3190   | 0.015                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS0J562( )        | 200          | 500       |
|                      | 6200              | 12.5           | 30   | 3630   | 0.013                            | 10000             | 0.8              | 5.0        |           |               | EEUFS0J622L          | 100          |           |
|                      | 6800              | 12.5           | 30   | 3630   | 0.013                            | 10000             | 0.8              | 5.0        |           |               | EEUFS0J682L          | 100          |           |
|                      | 7500              | 12.5           | 35   | 3750   | 0.012                            | 10000             | 0.8              | 5.0        |           |               | EEUFS0J752L          | 100          |           |
|                      |                   | 16             | 20   | 3300   | 0.017                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS0J752S( )       | 100          | 250       |
|                      | 8200              | 12.5           | 35   | 3750   | 0.012                            | 10000             | 0.8              | 5.0        |           |               | EEUFS0J822L          | 100          |           |
|                      |                   | 16             | 20   | 3300   | 0.017                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS0J822S( )       | 100          | 250       |
|                      | 9100              | 16             | 25   | 3820   | 0.014                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS0J912( )        | 100          | 250       |
| 10000                | 16                | 25             | 3820 | 0.014  | 10000                            | 0.8               | 7.5              | 7.5        |           | EEUFS0J103( ) | 100                  | 250          |           |
| 10                   | 180               | 5              | 11   | 280  | 0.300                            | 5000              | 0.5              | 2.0        | 5.0       | 2.5           | EEUFS1A181( )        | 200          | 2000      |
|                      | 330               | 6.3            | 11.2 | 455  | 0.130                            | 5000              | 0.5              | 2.5        | 5.0       | 2.5           | EEUFS1A331( )        | 200          | 2000      |
|                      | 820               | 8              | 11.5 | 950  | 0.056                            | 6000              | 0.6              | 3.5        | 5.0       |               | EEUFS1A821( )        | 200          | 1000      |
|                      | 1000              | 10             | 12.5 | 1290   | 0.043                            | 6000              | 0.6              | 5.0        | 5.0       |               | EEUFS1A102( )        | 200          | 500       |
|                      | 1200              | 8              | 15   | 1240   | 0.041                            | 8000              | 0.6              | 3.5        | 5.0       |               | EEUFS1A122L( )       | 200          | 1000      |
|                      |                   | 10             | 12.5 | 1290   | 0.043                            | 6000              | 0.6              | 5.0        | 5.0       |               | EEUFS1A122( )        | 200          | 500       |
|                      | 1800              | 8              | 20   | 1560   | 0.030                            | 9000              | 0.6              | 3.5        | 5.0       |               | EEUFS1A182L( )       | 200          | 1000      |
|                      |                   | 10             | 16   | 1790   | 0.028                            | 8000              | 0.6              | 5.0        | 5.0       |               | EEUFS1A182( )        | 200          | 500       |
|                      | 2000              | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1A202( )        | 200          | 500       |
|                      | 2200              | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1A222( )        | 200          | 500       |
|                      | 2700              | 10             | 25   | 2470   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1A272L( )       | 200          | 500       |
|                      | 3600              | 12.5           | 20   | 2600   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1A362( )        | 200          | 500       |
|                      | 4700              | 12.5           | 25   | 3190   | 0.015                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1A472( )        | 200          | 500       |
|                      | 5100              | 12.5           | 30   | 3630   | 0.013                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1A512L          | 100          |           |
|                      | 5600              | 12.5           | 30   | 3630   | 0.013                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1A562L          | 100          |           |
|                      |                   | 16             | 20   | 3300   | 0.017                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1A562S( )       | 100          | 250       |
|                      | 7500              | 12.5           | 35   | 3750   | 0.012                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1A752L          | 100          |           |
| 8200                 | 16                | 25             | 3820 | 0.014  | 10000                            | 0.8               | 7.5              | 7.5        |           | EEUFS1A822( ) | 100                  | 250          |           |

· When requesting taped product, please put the letter "B" or "H" between the "( )". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

· Please refer to the page of "Taping dimensions".

## Characteristics list

| Rated voltage (V.DC) | Cap. (±20 %) (μF) | Case size (mm) |      | Specification                                  |                                  |                   | Lead length (mm) |            |           | Part No.      | Min. Packaging Q'ty  |              |           |
|----------------------|-------------------|----------------|------|--|----------------------------------|-------------------|------------------|------------|-----------|---------------|----------------------|--------------|-----------|
|                      |                   | φD             | L    | Ripple current (100 kHz) (+105 °C) (mA r.m.s.) | Impedance (100 kHz) (+20 °C) (Ω) | Endurance (hours) | Lead dia. φd     | Lead space |           |               | Straight leads (pcs) | Taping (pcs) |           |
|                      |                   |                |      |  |                                  |                   |                  | Straight   | Taping *B |               |                      |              | Taping *H |
| 16                   | 120               | 5              | 11   | 280  | 0.300                            | 5000              | 0.5              | 2.0        | 5.0       | 2.5           | EEUFS1C121( )        | 200          | 2000      |
|                      | 510               | 8              | 11.5 | 950  | 0.056                            | 6000              | 0.6              | 3.5        | 5.0       |               | EEUFS1C511( )        | 200          | 1000      |
|                      | 820               | 8              | 15   | 1240   | 0.041                            | 8000              | 0.6              | 3.5        | 5.0       |               | EEUFS1C821L( )       | 200          | 1000      |
|                      |                   | 10             | 12.5 | 1290   | 0.043                            | 6000              | 0.6              | 5.0        | 5.0       |               | EEUFS1C821( )        | 200          | 500       |
|                      | 1200              | 8              | 20   | 1560   | 0.030                            | 9000              | 0.6              | 3.5        | 5.0       |               | EEUFS1C122L( )       | 200          | 1000      |
|                      |                   | 10             | 16   | 1790   | 0.028                            | 8000              | 0.6              | 5.0        | 5.0       |               | EEUFS1C122( )        | 200          | 500       |
|                      | 1800              | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1C182( )        | 200          | 500       |
|                      | 2200              | 10             | 25   | 2470   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1C222L( )       | 200          | 500       |
|                      | 2400              | 12.5           | 20   | 2600   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1C242( )        | 200          | 500       |
|                      | 3300              | 12.5           | 25   | 3190   | 0.015                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1C332( )        | 200          | 500       |
|                      | 3600              | 12.5           | 30   | 3630   | 0.013                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1C362L          | 100          |           |
|                      | 3900              | 12.5           | 30   | 3630   | 0.013                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1C392L          | 100          |           |
|                      | 4700              | 16             | 20   | 3300   | 0.017                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1C472S( )       | 100          | 250       |
|                      | 5100              | 12.5           | 35   | 3750   | 0.012                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1C512L          | 100          |           |
|                      | 6200              | 16             | 25   | 3820   | 0.014                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1C622( )        | 100          | 250       |
| 25                   | 1200              | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1E122( )        | 200          | 500       |
|                      | 2200              | 12.5           | 25   | 3190   | 0.015                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1E222( )        | 200          | 500       |
|                      | 3300              | 12.5           | 35   | 3750   | 0.012                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1E332L          | 100          |           |
|                      | 3900              | 16             | 25   | 3820   | 0.014                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1E392( )        | 100          | 250       |
| 35                   | 330               | 8              | 15   | 1240   | 0.041                            | 8000              | 0.6              | 3.5        | 5.0       |               | EEUFS1V331L( )       | 200          | 1000      |
|                      | 820               | 10             | 20   | 2180   | 0.020                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1V821( )        | 200          | 500       |
|                      | 1000              | 10             | 25   | 2470   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1V102L( )       | 200          | 500       |
|                      | 1500              | 12.5           | 25   | 3190   | 0.015                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1V152( )        | 200          | 500       |
|                      | 1800              | 16             | 20   | 3300   | 0.017                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1V182S( )       | 100          | 250       |
|                      | 2700              | 16             | 25   | 3820   | 0.014                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1V272( )        | 100          | 250       |
| 50                   | 27                | 5              | 11   | 250  | 0.340                            | 5000              | 0.5              | 2.0        | 5.0       | 2.5           | EEUFS1H270( )        | 200          | 2000      |
|                      | 150               | 8              | 15   | 1140   | 0.045                            | 8000              | 0.6              | 3.5        | 5.0       |               | EEUFS1H151L( )       | 200          | 1000      |
|                      | 220               | 8              | 20   | 1430   | 0.033                            | 9000              | 0.6              | 3.5        | 5.0       |               | EEUFS1H221L( )       | 200          | 1000      |
|                      | 330               | 10             | 20   | 1890   | 0.023                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1H331( )        | 200          | 500       |
|                      | 390               | 10             | 25   | 2150   | 0.022                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1H391L( )       | 200          | 500       |
|                      | 680               | 12.5           | 25   | 3660   | 0.018                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1H681( )        | 200          | 500       |
|                      | 820               | 12.5           | 30   | 3160   | 0.016                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1H821L          | 100          |           |
|                      | 1000              | 12.5           | 35   | 3270   | 0.014                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1H102L          | 100          |           |
|                      | 1200              | 16             | 25   | 3320   | 0.016                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1H122( )        | 100          | 250       |
| 63                   | 27                | 5              | 11   | 175  | 0.510                            | 5000              | 0.5              | 2.0        | 5.0       | 2.5           | EEUFS1J270( )        | 200          | 2000      |
|                      | 120               | 8              | 15   | 741  | 0.068                            | 8000              | 0.6              | 3.5        | 5.0       |               | EEUFS1J121L( )       | 200          | 1000      |
|                      |                   | 10             | 12.5 | 761  | 0.063                            | 6000              | 0.6              | 5.0        | 5.0       |               | EEUFS1J121( )        | 200          | 500       |
|                      | 180               | 8              | 20   | 930  | 0.050                            | 9000              | 0.6              | 3.5        | 5.0       |               | EEUFS1J181L( )       | 200          | 1000      |
|                      |                   | 10             | 16   | 1073   | 0.045                            | 8000              | 0.6              | 5.0        | 5.0       |               | EEUFS1J181( )        | 200          | 500       |
|                      | 330               | 10             | 25   | 1500   | 0.033                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1J331L( )       | 200          | 500       |
|                      | 390               | 12.5           | 20   | 1582   | 0.033                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1J391( )        | 200          | 500       |
|                      | 560               | 12.5           | 25   | 1995   | 0.027                            | 10000             | 0.6              | 5.0        | 5.0       |               | EEUFS1J561( )        | 200          | 500       |
|                      | 680               | 16             | 20   | 2153   | 0.029                            | 10000             | 0.8              | 7.5        | 7.5       |               | EEUFS1J681S( )       | 100          | 250       |
|                      | 820               | 12.5           | 35   | 2780   | 0.021                            | 10000             | 0.8              | 5.0        |           |               | EEUFS1J821L          | 100          |           |
| 1000                 | 16                | 25             | 2988 | 0.024  | 10000                            | 0.8               | 7.5              | 7.5        |           | EEUFS1J102( ) | 100                  | 250          |           |

· When requesting taped product, please put the letter "B" or "H" between the "( )". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

· Please refer to the page of "Taping dimensions".

## Characteristics list

| Rated voltage (V.DC) | Cap. (±20 %) (μF) | Case size (mm) |      | Specification                                  |                                  |                   | Lead length (mm) |            |           | Part No.       | Min. Packaging Q'ty  |              |           |
|----------------------|-------------------|----------------|------|--|----------------------------------|-------------------|------------------|------------|-----------|----------------|----------------------|--------------|-----------|
|                      |                   | φD             | L    | Ripple current (100 kHz) (+105 °C) (mA r.m.s.) | Impedance (100 kHz) (+20 °C) (Ω) | Endurance (hours) | Lead dia. φd     | Lead space |           |                | Straight leads (pcs) | Taping (pcs) |           |
|                      |                   |                |      |  |                                  |                   |                  | Straight   | Taping *B |                |                      |              | Taping *H |
| NEW 80               | 47                | 8              | 11.5 | 490  | 0.160                            | 6000              | 0.6              | 3.5        | 5.0       |                | EEUFS1K470( )        | 200          | 1000      |
|                      | 56                | 8              | 11.5 | 490  | 0.160                            | 6000              | 0.6              | 3.5        | 5.0       |                | EEUFS1K560( )        | 200          | 1000      |
|                      | 68                | 8              | 15   | 590  | 0.112                            | 8000              | 0.6              | 3.5        | 5.0       |                | EEUFS1K680( )        | 200          | 1000      |
|                      | 82                | 8              | 15   | 590  | 0.112                            | 8000              | 0.6              | 3.5        | 5.0       |                | EEUFS1K820( )        | 200          | 1000      |
|                      | 100               | 8              | 20   | 810  | 0.096                            | 9000              | 0.6              | 3.5        | 5.0       |                | EEUFS1K101L( )       | 200          | 1000      |
|                      |                   | 10             | 12.5 | 600  | 0.112                            | 6000              | 0.6              | 5.0        | 5.0       |                | EEUFS1K101( )        | 200          | 500       |
|                      | 120               | 8              | 20   | 810  | 0.096                            | 9000              | 0.6              | 3.5        | 5.0       |                | EEUFS1K121L( )       | 200          | 1000      |
|                      | 150               | 10             | 16   | 930  | 0.072                            | 8000              | 0.6              | 5.0        | 5.0       |                | EEUFS1K151( )        | 200          | 500       |
|                      | 180               | 10             | 20   | 1120   | 0.054                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS1K181( )        | 200          | 500       |
|                      | 220               | 10             | 20   | 1120   | 0.054                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS1K221( )        | 200          | 500       |
|                      |                   | 10             | 25   | 1200   | 0.044                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS1K221L( )       | 200          | 500       |
|                      | 270               | 10             | 25   | 1200   | 0.044                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS1K271L( )       | 200          | 500       |
|                      |                   | 12.5           | 20   | 1400   | 0.043                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS1K271( )        | 200          | 500       |
|                      | 390               | 12.5           | 25   | 1800   | 0.034                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS1K391( )        | 200          | 500       |
|                      | 470               | 12.5           | 30   | 2200   | 0.030                            | 10000             | 0.8              | 5.0        |           |                | EEUFS1K471L( )       | 100          |           |
|                      |                   | 16             | 20   | 1450   | 0.032                            | 10000             | 0.8              | 7.5        | 7.5       |                | EEUFS1K471S( )       | 100          | 250       |
| 560                  | 12.5              | 35             | 2380 | 0.023  | 10000                            | 0.8               | 5.0              |            |           | EEUFS1K561L( ) | 100                  |              |           |
| 680                  | 16                | 25             | 2500 | 0.025  | 10000                            | 0.8               | 7.5              | 7.5        |           | EEUFS1K681( )  | 100                  | 250          |           |
| NEW 100              | 27                | 8              | 11.5 | 490  | 0.160                            | 6000              | 0.6              | 3.5        | 5.0       |                | EEUFS2A270( )        | 200          | 1000      |
|                      | 33                | 8              | 11.5 | 490  | 0.160                            | 6000              | 0.6              | 3.5        | 5.0       |                | EEUFS2A330( )        | 200          | 1000      |
|                      | 39                | 8              | 15   | 590  | 0.112                            | 8000              | 0.6              | 3.5        | 5.0       |                | EEUFS2A390( )        | 200          | 1000      |
|                      | 47                | 8              | 15   | 590  | 0.112                            | 8000              | 0.6              | 3.5        | 5.0       |                | EEUFS2A470L( )       | 200          | 1000      |
|                      |                   | 10             | 12.5 | 600  | 0.112                            | 6000              | 0.6              | 5.0        | 5.0       |                | EEUFS2A470( )        | 200          | 500       |
|                      | 56                | 8              | 20   | 810  | 0.096                            | 9000              | 0.6              | 3.5        | 5.0       |                | EEUFS2A560L( )       | 200          | 1000      |
|                      | 68                | 8              | 20   | 810  | 0.096                            | 9000              | 0.6              | 3.5        | 5.0       |                | EEUFS2A680L( )       | 200          | 1000      |
|                      |                   | 10             | 16   | 930  | 0.072                            | 8000              | 0.6              | 5.0        | 5.0       |                | EEUFS2A680( )        | 200          | 500       |
|                      | 120               | 10             | 20   | 1120   | 0.054                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS2A121( )        | 200          | 500       |
|                      |                   | 10             | 25   | 1200   | 0.044                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS2A121L( )       | 200          | 500       |
|                      | 150               | 10             | 25   | 1200   | 0.044                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS2A151L( )       | 200          | 500       |
|                      |                   | 12.5           | 20   | 1400   | 0.043                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS2A151( )        | 200          | 500       |
|                      | 180               | 12.5           | 25   | 1800   | 0.034                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS2A181( )        | 200          | 500       |
|                      | 220               | 12.5           | 25   | 1800   | 0.034                            | 10000             | 0.6              | 5.0        | 5.0       |                | EEUFS2A221( )        | 200          | 500       |
|                      | 270               | 12.5           | 30   | 2200   | 0.030                            | 10000             | 0.8              | 5.0        |           |                | EEUFS2A271L( )       | 100          |           |
|                      |                   | 16             | 20   | 1450   | 0.032                            | 10000             | 0.8              | 7.5        | 7.5       |                | EEUFS2A271S( )       | 100          | 250       |
| 330                  | 12.5              | 35             | 2380 | 0.023  | 10000                            | 0.8               | 5.0              |            |           | EEUFS2A331L( ) | 100                  |              |           |
| 390                  | 16                | 25             | 2500 | 0.025  | 10000                            | 0.8               | 7.5              | 7.5        |           | EEUFS2A391( )  | 100                  | 250          |           |

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