

**NEW**

**Radial Lead Type**

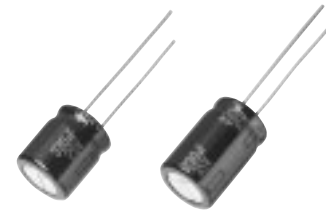
Series: **FR** Type: **A**

■ **Features**

- Low ESR (Same as FM Series)
- Endurance : 2000 h to 10000 h at +105 °C
- RoHS directive compliant

■ **Country of origin**

Malaysia



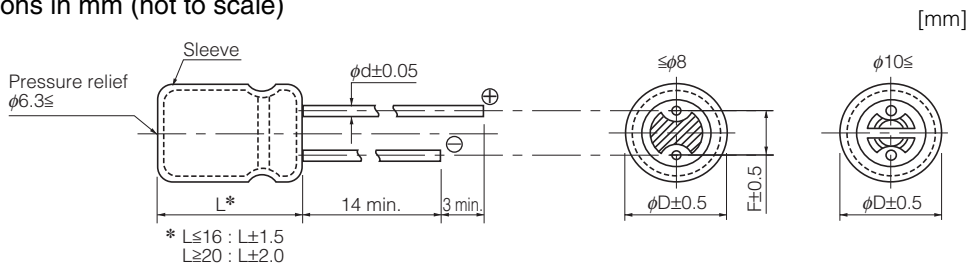
■ **Specifications**

|   |  |   |      |      |      |      |      |                 |
|---|--|---|------|------|------|------|------|-----------------|
| Category Temp. Range                                  | -40 °C to +105 °C  |   |      |      |      |      |      |                 |
| Rated W.V. Range                                      | 6.3 V.DC to 50 V.DC  |   |      |      |      |      |      |                 |
| Nominal Cap. Range                                    | 22 μF to 8200 μF   |   |      |      |      |      |      |                 |
| Capacitance Tolerance                                 | ±20 % (120 Hz/+20 °C)  |   |      |      |      |      |      |                 |
| DC Leakage Current                                    | I ≤ 0.01 CV (μA) After 2 minutes   |   |      |      |      |      |      |                 |
| tan δ   | W.V.   | 6.3   | 10   | 16   | 25   | 35   | 50   | (120 Hz/+20 °C) |
|   | tan δ  | 0.22  | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 |                 |
| 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 : 2000 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   | ±25 % of initial measured value (6.3 V to 10 V : ±30 %) |      |      |      |      |      |                 |
|   | tan δ  | ≤ 200 % of initial specified value                      |      |      |      |      |      |                 |
| Shelf Life  | DC leakage current ≤ initial specified value   |   |      |      |      |      |      |                 |
|   | 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**

| W.V.(V.DC) | Cap (μF)     | Frequency (Hz) |      |      |      |       |
|------------|--------------|----------------|------|------|------|-------|
|            |              | 60             | 120  | 1 k  | 10 k | 100 k |
| 6.3 to 50  | 22 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 8200 | 0.75           | 0.80 | 0.95 | 1.00 | 1.00  |

■ **Dimensions in mm (not to scale)**



|               | [mm] |     |     |     |            |          |     |
|---------------|------|-----|-----|-----|------------|----------|-----|
| Body Dia. φD  | 5    | 6.3 | 8   | 10  | 12.5       |          | 16  |
| Body Length L | —    | —   | —   | —   | 12.5 to 25 | 30 to 35 | —   |
| Lead Dia. φd  | 0.5  | 0.5 | 0.6 | 0.6 | 0.6        | 0.8      | 0.8 |
| Lead space F  | 2.0  | 2.5 | 3.5 | 5.0 | 5.0        |          | 7.5 |

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Case size/Impedance/Ripple current

| W.V.(V.DC)<br><br>Case size<br>( $\phi$ D×L) | 6.3 V to 35 V                     |        |                                       | 50 V                              |        |                                       |
|--|-----------------------------------|--------|---------------------------------------|-----------------------------------|--------|---------------------------------------|
|  | 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                               |
| 5 × 11                                       | 0.300                             | 1.000  | 280                                   | 0.340                             | 1.130  | 250                                   |
| 6.3 × 11.2                                   | 0.130                             | 0.430  | 455                                   | 0.140                             | 0.460  | 405                                   |
| 8 × 11.5                                     | 0.056                             | 0.168  | 950                                   | 0.061                             | 0.183  | 870                                   |
| 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                                  | 0.042                             | 0.126  | 1170                                  |
| 10 × 16                                      | 0.028                             | 0.078  | 1790                                  | 0.030                             | 0.090  | 1650                                  |
| 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                                  | 0.022                             | 0.055  | 2260                                  |
| 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                                  | 0.019                             | 0.048  | 2870                                  |
| 16 × 25                                      | 0.014                             | 0.035  | 3820                                  | 0.016                             | 0.040  | 3320                                  |

**NEW**

■ Standard Products

| W.V.<br>(V) | Cap.<br>(±20 %)<br>(μF) | Case size    |                | Specification   |   |                      | Lead Length       |                  |                      |                      | Part No.       | Min. Packaging Qty      |                 |
|-------------|-------------------------|--------------|----------------|---|---|----------------------|-------------------|------------------|----------------------|----------------------|----------------|-------------------------|-----------------|
|             |                         | Dia.<br>(mm) | Length<br>(mm) | Ripple Current<br>(100 kHz)<br>(+105 °C)<br>(mA r.m.s.) | Impedance<br>(100 kHz)<br>(+20 °C)<br>(Ω) | Endurance<br>(hours) | Lead Dia.<br>(mm) | Lead Space       |                      |                      |                | Straight Leads<br>(pcs) | Taping<br>(pcs) |
|             |                         |              |                |   |   |                      |                   | Straight<br>(mm) | Taping<br>*B<br>(mm) | Taping<br>*H<br>(mm) |                |                         |                 |
| 6.3         | 150                     | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR0J151( )  | 200                     | 2000            |
|             | 330                     | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR0J331( )  | 200                     | 2000            |
|             | 820                     | 8            | 11.5           | 950   | 0.056                                     | 6000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR0J821( )  | 200                     | 1000            |
|             | 1200                    | 8            | 15             | 1240  | 0.041                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR0J122L( ) | 200                     | 1000            |
|             |                         | 10           | 12.5           | 1290  | 0.043                                     | 6000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR0J122( )  | 200                     | 500             |
|             | 1500                    | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR0J152L( ) | 200                     | 1000            |
|             | 1800                    | 10           | 16             | 1790  | 0.028                                     | 8000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR0J182( )  | 200                     | 500             |
|             | 2200                    | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR0J222( )  | 200                     | 500             |
|             | 2700                    | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR0J272L( ) | 200                     | 500             |
|             | 3900                    | 12.5         | 20             | 2600  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR0J392( )  | 200                     | 500             |
|             | 4700                    | 12.5         | 25             | 3190  | 0.015                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR0J472( )  | 200                     | 500             |
|             | 5600                    | 12.5         | 30             | 3630  | 0.013                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR0J562L    | 100                     |                 |
|             | 6800                    | 12.5         | 35             | 3750  | 0.012                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR0J682L    | 100                     |                 |
| 16          |                         | 20           | 3300           | 0.017   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR0J682S( )       | 100            | 250                     |                 |
| 8200        | 16                      | 25           | 3820           | 0.014   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR0J822( )        | 100            | 250                     |                 |
| 10          | 100                     | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1A101( )  | 200                     | 2000            |
|             | 150                     | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1A151( )  | 200                     | 2000            |
|             | 220                     | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1A221( )  | 200                     | 2000            |
|             | 680                     | 8            | 11.5           | 950   | 0.056                                     | 6000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1A681( )  | 200                     | 1000            |
|             | 820                     | 10           | 12.5           | 1290  | 0.043                                     | 6000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1A821( )  | 200                     | 500             |
|             | 1000                    | 8            | 15             | 1240  | 0.041                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1A102L( ) | 200                     | 1000            |
|             |                         | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1A152L( ) | 200                     | 1000            |
|             | 1500                    | 10           | 16             | 1790  | 0.028                                     | 8000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1A152( )  | 200                     | 500             |
|             |                         | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1A182( )  | 200                     | 500             |
|             | 2200                    | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1A222L( ) | 200                     | 500             |
|             | 3300                    | 12.5         | 20             | 2600  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1A332( )  | 200                     | 500             |
|             | 3900                    | 12.5         | 25             | 3190  | 0.015                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1A392( )  | 200                     | 500             |
|             | 4700                    | 12.5         | 30             | 3630  | 0.013                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR1A472L    | 100                     |                 |
| 16          |                         | 20           | 3300           | 0.017   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1A472S( )       | 100            | 250                     |                 |
| 5600        | 12.5                    | 35           | 3750           | 0.012   | 10000                                     | 0.8                  | 5.0               |                  |                      | EEUFR1A562L          | 100            |                         |                 |
| 6800        | 12.5                    | 35           | 3750           | 0.012   | 10000                                     | 0.8                  | 5.0               |                  |                      | EEUFR1A682L          | 100            |                         |                 |
|             | 16                      | 25           | 3820           | 0.014   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1A682( )        | 100            | 250                     |                 |
| 16          | 68                      | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1C680( )  | 200                     | 2000            |
|             | 100                     | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1C101( )  | 200                     | 2000            |
|             | 120                     | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1C121( )  | 200                     | 2000            |
|             | 220                     | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1C221( )  | 200                     | 2000            |
|             | 470                     | 8            | 11.5           | 950   | 0.056                                     | 6000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1C471( )  | 200                     | 1000            |
|             |                         | 8            | 15             | 1240  | 0.041                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1C681L( ) | 200                     | 1000            |
|             | 680                     | 10           | 12.5           | 1290  | 0.043                                     | 6000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1C681( )  | 200                     | 500             |
|             |                         | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1C102L( ) | 200                     | 1000            |
|             | 1000                    | 10           | 16             | 1790  | 0.028                                     | 8000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1C102( )  | 200                     | 500             |
|             |                         | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1C152( )  | 200                     | 500             |
|             | 1500                    | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1C152L( ) | 200                     | 500             |
|             |                         | 1800         | 10             | 25  | 2470                                      | 0.018                | 10000             | 0.6              | 5.0                  | 5.0                  |                | EEUFR1C182L( )          | 200             |
|             | 2200                    | 12.5         | 20             | 2600  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1C222( )  | 200                     | 500             |
| 2700        | 12.5                    | 25           | 3190           | 0.015   | 10000                                     | 0.6                  | 5.0               | 5.0              |                      | EEUFR1C272( )        | 200            | 500                     |                 |
| 3300        | 12.5                    | 30           | 3630           | 0.013   | 10000                                     | 0.8                  | 5.0               |                  |                      | EEUFR1C332L          | 100            |                         |                 |
|             | 16                      | 20           | 3300           | 0.017   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1C332S( )       | 100            | 250                     |                 |
| 3900        | 12.5                    | 35           | 3750           | 0.012   | 10000                                     | 0.8                  | 5.0               |                  |                      | EEUFR1C392L          | 100            |                         |                 |
|             | 16                      | 20           | 3300           | 0.017   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1C392S( )       | 100            | 250                     |                 |
| 4700        | 12.5                    | 35           | 3750           | 0.012   | 10000                                     | 0.8                  | 5.0               |                  |                      | EEUFR1C472L          | 100            |                         |                 |
|             | 16                      | 25           | 3820           | 0.014   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1C472( )        | 100            | 250                     |                 |
| 5600        | 16                      | 25           | 3820           | 0.014   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1C562( )        | 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. The taping dimensions are explained on EE189 of our Catalog. Please use it as a reference guide.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Standard Products

| W.V.<br><br>(V) | Cap.<br>(±20 %)<br><br>(μF) | Case size    |                | Specification   |   |                      | Lead Length       |                  |                      |                      | Part No.       | Min. Packaging Q'ty     |                 |
|-----------------|-----------------------------|--------------|----------------|---|---|----------------------|-------------------|------------------|----------------------|----------------------|----------------|-------------------------|-----------------|
|                 |                             | Dia.<br>(mm) | Length<br>(mm) | Ripple Current<br>(100 kHz)<br>(+105 °C)<br>(mA r.m.s.) | Impedance<br>(100 kHz)<br>(+20 °C)<br>(Ω) | Endurance<br>(hours) | Lead Dia.<br>(mm) | Lead Space       |                      |                      |                | Straight Leads<br>(pcs) | Taping<br>(pcs) |
|                 |                             |              |                |   |   |                      |                   | Straight<br>(mm) | Taping<br>*B<br>(mm) | Taping<br>*H<br>(mm) |                |                         |                 |
| 25              | 47                          | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1E470( )  | 200                     | 2000            |
|                 | 68                          | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1E680( )  | 200                     | 2000            |
|                 | 100                         | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1E101( )  | 200                     | 2000            |
|                 | 150                         | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1E151( )  | 200                     | 2000            |
|                 | 330                         | 8            | 11.5           | 950   | 0.056                                     | 6000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1E331( )  | 200                     | 1000            |
|                 | 390                         | 8            | 15             | 1240  | 0.041                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1E391L( ) | 200                     | 1000            |
|                 | 470                         | 8            | 15             | 1240  | 0.041                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1E471Y( ) | 200                     | 1000            |
|                 |                             | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1E471L( ) | 200                     | 1000            |
|                 |                             | 10           | 12.5           | 1290  | 0.043                                     | 6000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E471( )  | 200                     | 500             |
|                 | 560                         | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1E561L( ) | 200                     | 1000            |
|                 | 680                         | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1E681L( ) | 200                     | 1000            |
|                 |                             | 10           | 16             | 1790  | 0.028                                     | 8000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E681( )  | 200                     | 500             |
|                 | 820                         | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E821( )  | 200                     | 500             |
|                 | 1000                        | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E102( )  | 200                     | 500             |
|                 |                             | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E102L( ) | 200                     | 500             |
|                 | 1200                        | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E122L( ) | 200                     | 500             |
|                 | 1500                        | 12.5         | 20             | 2600  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E152( )  | 200                     | 500             |
|                 | 1800                        | 12.5         | 25             | 3190  | 0.015                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1E182( )  | 200                     | 500             |
|                 | 2200                        | 12.5         | 30             | 3630  | 0.013                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR1E222L    | 100                     |                 |
|                 |                             | 16           | 20             | 3300  | 0.017                                     | 10000                | 0.8               | 7.5              | 7.5                  |                      | EEUFR1E222S( ) | 100                     | 250             |
| 2700            | 12.5                        | 35           | 3750           | 0.012   | 10000                                     | 0.8                  | 5.0               |                  |                      | EEUFR1E272L          | 100            |                         |                 |
|                 | 16                          | 20           | 3300           | 0.017   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1E272S( )       | 100            | 250                     |                 |
| 3300            | 16                          | 25           | 3820           | 0.014   | 10000                                     | 0.8                  | 7.5               | 7.5              |                      | EEUFR1E332( )        | 100            | 250                     |                 |
| 35              | 33                          | 5            | 11             | 280   | 0.300                                     | 2000                 | 0.5               | 2.0              | 5.0                  | 2.5                  | EEUFR1V330( )  | 200                     | 2000            |
|                 | 68                          | 6.3          | 11.2           | 455   | 0.130                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1V680( )  | 200                     | 2000            |
|                 | 180                         | 8            | 11.5           | 950   | 0.056                                     | 6000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1V181( )  | 200                     | 1000            |
|                 | 270                         | 8            | 15             | 1240  | 0.041                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1V271L( ) | 200                     | 1000            |
|                 |                             | 10           | 12.5           | 1290  | 0.043                                     | 6000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V271( )  | 200                     | 500             |
|                 | 390                         | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1V391L( ) | 200                     | 1000            |
|                 | 470                         | 8            | 20             | 1560  | 0.030                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1V471L( ) | 200                     | 1000            |
|                 |                             | 10           | 16             | 1790  | 0.028                                     | 8000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V471( )  | 200                     | 500             |
|                 | 560                         | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V561( )  | 200                     | 500             |
|                 | 680                         | 10           | 20             | 2180  | 0.020                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V681( )  | 200                     | 500             |
|                 |                             | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V681L( ) | 200                     | 500             |
|                 | 820                         | 10           | 25             | 2470  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V821L( ) | 200                     | 500             |
|                 | 1000                        | 12.5         | 20             | 2600  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V102( )  | 200                     | 500             |
|                 | 1200                        | 12.5         | 25             | 3190  | 0.015                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1V122( )  | 200                     | 500             |
|                 |                             | 12.5         | 30             | 3630  | 0.013                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR1V152L    | 100                     |                 |
|                 | 1500                        | 16           | 20             | 3300  | 0.017                                     | 10000                | 0.8               | 7.5              | 7.5                  |                      | EEUFR1V152S( ) | 100                     | 250             |
|                 |                             | 1800         | 12.5           | 35  | 3750                                      | 0.012                | 10000             | 0.8              | 5.0                  |                      | EEUFR1V182L    | 100                     |                 |
|                 | 2200                        | 12.5         | 35             | 3750  | 0.012                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR1V222L    | 100                     |                 |
|                 |                             | 16           | 25             | 3820  | 0.014                                     | 10000                | 0.8               | 7.5              | 7.5                  |                      | EEUFR1V222( )  | 100                     | 250             |
|                 | 50                          | 22           | 5              | 11.5  | 250                                       | 0.340                | 2000              | 0.5              | 2.0                  | 5.0                  | 2.5            | EEUFR1H220( )           | 200             |
| 56              |                             | 6.3          | 11.2           | 405   | 0.140                                     | 2000                 | 0.5               | 2.5              | 5.0                  | 2.5                  | EEUFR1H560( )  | 200                     | 2000            |
| 100             |                             | 8            | 11.5           | 870   | 0.061                                     | 6000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1H101( )  | 200                     | 1000            |
| 120             |                             | 8            | 15             | 1140  | 0.045                                     | 8000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1H121L( ) | 200                     | 1000            |
| 150             |                             | 10           | 12.5           | 1170  | 0.042                                     | 6000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1H151( )  | 200                     | 500             |
| 180             |                             | 8            | 20             | 1430  | 0.033                                     | 9000                 | 0.6               | 3.5              | 5.0                  |                      | EEUFR1H181L( ) | 200                     | 1000            |
| 220             |                             | 10           | 16             | 1650  | 0.030                                     | 8000                 | 0.6               | 5.0              | 5.0                  |                      | EEUFR1H221( )  | 200                     | 500             |
| 270             |                             | 10           | 20             | 1890  | 0.023                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1H271( )  | 200                     | 500             |
| 330             |                             | 10           | 25             | 2150  | 0.022                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1H331L( ) | 200                     | 500             |
| 470             |                             | 12.5         | 20             | 2260  | 0.022                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1H471( )  | 200                     | 500             |
| 560             |                             | 12.5         | 25             | 2660  | 0.018                                     | 10000                | 0.6               | 5.0              | 5.0                  |                      | EEUFR1H561( )  | 200                     | 500             |
| 680             |                             | 12.5         | 30             | 3160  | 0.016                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR1H681L    | 100                     |                 |
| 820             |                             | 12.5         | 35             | 3270  | 0.014                                     | 10000                | 0.8               | 5.0              |                      |                      | EEUFR1H821L    | 100                     |                 |
|                 |                             | 16           | 20             | 2870  | 0.019                                     | 10000                | 0.8               | 7.5              | 7.5                  |                      | EEUFR1H821S( ) | 100                     | 250             |
| 1000            |                             | 16           | 25             | 3320  | 0.016                                     | 10000                | 0.8               | 7.5              | 7.5                  |                      | EEUFR1H102( )  | 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. The taping dimensions are explained on EE189 of our Catalog. Please use it as a reference guide.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.