

Surface Mount Type **SP-Cap**

Series: **FD, CD, CX, UD, UE**



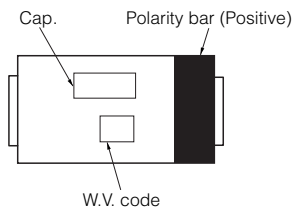
■ Features

- Low ESR
- Excellent Noise-absorbent Characteristics
- RoHS directive compliant

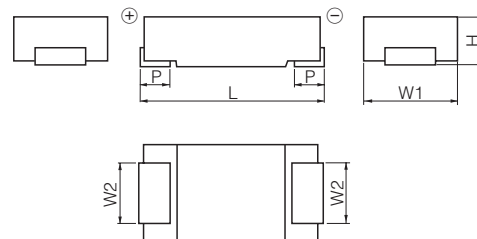
■ Specifications

| Series & Size Code    | FD  | CD                                      | CX                 | UD                          | UE                |
|-----------------------|---|---|--------------------|-----------------------------|-------------------|
| Category Temp. Range  | -40 °C to +105 °C   |   |                    |                             |                   |
| Rated W.V.Range       | 2 V.DC to 12.5 V.DC   | 2 V.DC to 16 V.DC                       | 2 V.DC to 6.3 V.DC | 2 V.DC to 8 V.DC            | 2 V.DC to 8 V.DC  |
| Nominal Cap.Range     | 15 μF to 68 μF  | 2.2 μF to 220 μF                        | 100 μF to 470 μF   | 68 μF to 470 μF             | 100 μF to 560 μF  |
| Capacitance Tolerance | ±20 %   |   |                    |                             |                   |
| DC Leakage Current    | Reflow 240 °C : $I \leq 0.06 CV$ 2minutes (2 V.DC to 4 V.DC)<br>$I \leq 0.04 CV$ or $3 \mu A$ 2 minutes (6.3 V.DC to 16 V.DC) (Whichever is greater)<br><br>Reflow 260 °C : $I \leq 0.1 CV$ 2 minutes |   |                    |                             |                   |
| $\tan \delta$         | $\leq 0.06$ (120 Hz/+20 °C)   |   |                    | $\leq 0.10$ (120 Hz/+20 °C) |                   |
| Surge Voltage         | Rated Working Voltage $\times$ 1.25 (15 °C to 35 °C)  |   |                    |                             |                   |
| Endurance             | After applying rated working voltage for 1000 hours at 105 °C±2 °C, and then being stabilized at +20 °C, capacitor shall meet the following limits.   |   |                    |                             |                   |
|                       | Capacitance change  | ±10% of initial measured value          |                    |                             |                   |
|                       | $\tan \delta$   | $\leq$ Initial specified value          |                    |                             |                   |
|                       | DC leakage current  | $\leq$ Initial specified value          |                    |                             |                   |
| Moisture resistance   | After storing for 500 hours at 60 °C, 90 %  |   |                    |                             |                   |
|                       | Capacitance change of initial measured value  | 2, 2.5 V.DC                             | 4 V.DC             | 6.3 V.DC                    | 8 V.DC to 16 V.DC |
|                       |   | +70, -20 %                              | +60, -20 %         | +50, -20 %                  | +40, -20 %        |
|                       | $\tan \delta$   | $\leq$ 200 % of initial specified value |                    |                             |                   |
|                       | DC leakage current  | $\leq$ Initial specified value          |                    |                             |                   |

■ Marking



■ Dimensions in mm(not to scale)



| Series & Size Code | L±0.2 | W1±0.2 | W2±0.1 | H       | P±0.3 |
|--------------------|-------|--------|--------|---------|-------|
| FD                 | 7.3   | 4.3    | 2.4    | 1.1±0.1 | 1.3   |
| CD                 | 7.3   | 4.3    | 2.4    | 1.8±0.1 | 1.3   |
| CX                 | 7.3   | 4.3    | 2.4    | 1.9±0.2 | 1.3   |
| UD                 | 7.3   | 4.3    | 2.4    | 2.8±0.2 | 1.3   |
| UE                 | 7.3   | 4.3    | 2.4    | 4.2±0.1 | 1.3   |

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.

02 Dec. 2008

### Standard Products

| Series & Size Code | Rated W.V. (V.DC) | Capacitance (±20 %) (μF) | Case Size |        |        | Specification                  |              | Part number                     |  | Min. Packaging Q'ty (pcs) |      |
|--------------------|-------------------|--------------------------|-----------|--------|--------|--------------------------------|--------------|---------------------------------|--|---------------------------|------|
|                    |                   |                          | L (mm)    | W (mm) | H (mm) | *1<br>Ripple current (Ar.m.s.) | ESR*2<br>(Ω) | *3<br>Reflow condition : 240 °C | *3<br>Reflow condition : 260 °C [Proposal] |                           |      |
| FD                 | 2                 | 68                       | 7.3       | 4.3    | 1.1    | 2.0                            | 0.028        | EEFFD0D680R                     | —  | 3500                      |      |
|                    | 2.5               | 56                       | 7.3       | 4.3    | 1.1    | 2.0                            | 0.028        | EEFFD0E560R                     | —  | 3500                      |      |
|                    | 4                 | 39                       | 7.3       | 4.3    | 1.1    | 2.0                            | 0.028        | EEFFD0G390R                     | —  | 3500                      |      |
|                    |                   | 47                       | 7.3       | 4.3    | 1.1    | 2.0                            | 0.028        | EEFFD0G470R                     | —  | 3500                      |      |
|                    | 6.3               | 33                       | 7.3       | 4.3    | 1.1    | 2.0                            | 0.028        | EEFFD0J330R                     | —  | 3500                      |      |
|                    | 8                 | 22                       | 7.3       | 4.3    | 1.1    | 2.0                            | 0.028        | EEFFD0K220R                     | —  | 3500                      |      |
| 12.5               | 15                | 7.3                      | 4.3       | 1.1    | 1.4    | 0.040                          | EEFFD1B150R  | —                               | 3500                                       |                           |      |
| CD                 | 2                 | 100                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0D101R                     | EEFCD0D101ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0D101XR                    | EEFCD0D101XE                               | 3500                      |      |
|                    |                   | 120                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0D121R                     | EEFCD0D121ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0D121XR                    | EEFCD0D121XE                               | 3500                      |      |
|                    |                   | 150                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0D151R                     | EEFCD0D151ER                               | 3500                      |      |
|                    |                   | 180                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0D181R                     | EEFCD0D181ER                               | 3500                      |      |
|                    | 2.5               | 82                       | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0E820R                     | EEFCD0E820ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0E820XR                    | EEFCD0E820XE                               | 3500                      |      |
|                    |                   | 100                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0E101R                     | EEFCD0E101ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0E101XR                    | EEFCD0E101XE                               | 3500                      |      |
|                    |                   | 120                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0E121R                     | EEFCD0E121ER                               | 3500                      |      |
|                    |                   | 150                      | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0E151R                     | EEFCD0E151ER                               | 3500                      |      |
|                    | 4                 | 56                       | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0G560R                     | EEFCD0G560ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0G560XR                    | EEFCD0G560XE                               | 3500                      |      |
|                    |                   | 68                       | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0G680R                     | EEFCD0G680ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0G680XR                    | EEFCD0G680XE                               | 3500                      |      |
|                    |                   | 82                       | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0G820R                     | EEFCD0G820ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0G820XR                    | EEFCD0G820XE                               | 3500                      |      |
|                    | 100               | 7.3                      | 4.3       | 1.8    | 2.5    | 0.018                          | EEFCD0G101R  | EEFCD0G101ER                    | 3500                                       |                           |      |
|                    | 6.3               | 10                       | 7.3       | 4.3    | 1.8    | 1.4                            | 0.055        | EEFCD0J100R                     | EEFCD0J100ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 1.6                            | 0.040        | EEFCD0J220R                     | EEFCD0J220ER                               | 3500                      |      |
|                    |                   | 33                       | 7.3       | 4.3    | 1.8    | 2.0                            | 0.028        | EEFCD0J330R                     | EEFCD0J330ER                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0J470R                     | EEFCD0J470ER                               | 3500                      |      |
|                    |                   | 47                       | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0J470XR                    | EEFCD0J470XE                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.8    | 2.5                            | 0.018        | EEFCD0J680R                     | EEFCD0J680ER                               | 3500                      |      |
|                    |                   | 68                       | 7.3       | 4.3    | 1.8    | 2.7                            | 0.015        | EEFCD0J680XR                    | EEFCD0J680XE                               | 3500                      |      |
|                    |                   |                          | 8.2       | 7.3    | 4.3    | 1.8                            | 1.4          | 0.055                           | EEFCD0K8R2R                                | EEFCD0K8R2ER              | 3500 |
|                    |                   | 8                        | 15        | 7.3    | 4.3    | 1.8                            | 1.6          | 0.040                           | EEFCD0K150R                                | EEFCD0K150ER              | 3500 |
|                    |                   |                          | 22        | 7.3    | 4.3    | 1.8                            | 1.8          | 0.028                           | EEFCD0K220R                                | EEFCD0K220ER              | 3500 |
|                    |                   |                          | 33        | 7.3    | 4.3    | 1.8                            | 2.5          | 0.018                           | EEFCD0K330R                                | EEFCD0K330ER              | 3500 |
|                    |                   |                          | 47        | 7.3    | 4.3    | 1.8                            | 1.8          | 0.025                           | EEFCD0K470R                                | EEFCD0K470ER              | 3500 |
|                    | 10                | 22                       | 7.3       | 4.3    | 1.8    | 1.6                            | 0.030        | —                               | EEFCD1A220ER                               | 3500                      |      |
|                    |                   | 33                       | 7.3       | 4.3    | 1.8    | 1.8                            | 0.025        | —                               | EEFCD1A330ER                               | 3500                      |      |
|                    |                   | 39                       | 7.3       | 4.3    | 1.8    | 1.8                            | 0.025        | —                               | EEFCD1A390ER                               | 3500                      |      |
|                    | 12.5              | 4.7                      | 7.3       | 4.3    | 1.8    | 1.0                            | 0.080        | EEFCD1B4R7R                     | —  | 3500                      |      |
|                    |                   | 10                       | 7.3       | 4.3    | 1.8    | 1.0                            | 0.060        | EEFCD1B100R                     | —  | 3500                      |      |
|                    |                   | 15                       | 7.3       | 4.3    | 1.8    | 1.3                            | 0.050        | EEFCD1B150R                     | —  | 3500                      |      |
|                    |                   | 22                       | 7.3       | 4.3    | 1.8    | 1.6                            | 0.030        | EEFCD1B220R                     | —  | 3500                      |      |
|                    | 16                | 2.2                      | 7.3       | 4.3    | 1.8    | 1.0                            | 0.110        | EEFCD1C2R2R                     | —  | 3500                      |      |
|                    |                   | 4.7                      | 7.3       | 4.3    | 1.8    | 1.0                            | 0.080        | EEFCD1C4R7R                     | —  | 3500                      |      |
|                    |                   | 6.8                      | 7.3       | 4.3    | 1.8    | 1.0                            | 0.070        | EEFCD1C6R8R                     | —  | 3500                      |      |
|                    |                   | 8.2                      | 7.3       | 4.3    | 1.8    | 1.3                            | 0.045        | EEFCD1C8R2R                     | —  | 3500                      |      |
| CX                 | 2                 | 220                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0D221R                                | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.9    | 3.0                            | 0.012        | —                               | EEFCX0D271XR                               | 3500                      |      |
|                    |                   | 330                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0D331R                                | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.9    | 3.0                            | 0.012        | —                               | EEFCX0D331XR                               | 3500                      |      |
|                    |                   | 390                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0D391R                                | 3500                      |      |
|                    |                   | 470                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0D471R                                | 3500                      |      |
|                    | 2.5               | 220                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0E221R                                | 3500                      |      |
|                    |                   | 330                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0E331R                                | 3500                      |      |
|                    |                   | 390                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0E391R                                | 3500                      |      |
|                    | 4                 | 150                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0G151R                                | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0G181R                                | 3500                      |      |
|                    |                   | 180                      | 7.3       | 4.3    | 1.9    | 3.0                            | 0.012        | —                               | EEFCX0G181XR                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0G221R                                | 3500                      |      |
|                    |                   | 220                      | 7.3       | 4.3    | 1.9    | 3.0                            | 0.012        | —                               | EEFCX0G221XR                               | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.9    | 3.0                            | 0.012        | —                               | EEFCX0G221XR                               | 3500                      |      |
|                    | 6.3               | 100                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0J101R                                | 3500                      |      |
|                    |                   | 120                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0J121R                                | 3500                      |      |
|                    |                   | 150                      | 7.3       | 4.3    | 1.9    | 2.7                            | 0.015        | —                               | EEFCX0J151R                                | 3500                      |      |
|                    |                   |                          | 7.3       | 4.3    | 1.9    | 3.0                            | 0.012        | —                               | EEFCX0J151XR                               | 3500                      |      |

\*1: Ripple current (100 kHz/ +20 to +105 °C), \*2: ESR (100 kHz/+20 °C)

\*3: Please confirm EE23 in detail of the Mounting Specifications.

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.

**NEW**

■ Standard Products

| Series & Size Code | Rated W.V. (V.DC) | Capacitance (±20 %) (μF) | Case Size |        |        | Specification              |                | Part number                 |  | Min. Packaging Qty (pcs) |      |
|--------------------|-------------------|--------------------------|-----------|--------|--------|----------------------------|----------------|-----------------------------|--|--------------------------|------|
|                    |                   |                          | L (mm)    | W (mm) | H (mm) | Ripple current*1 (Ar.m.s.) | ESR*2 (Ω)      | Reflow condition : 240 °C*3 | Reflow condition : 260 °C*3 [Proposal] |                          |      |
| UD                 | 2                 | 330                      | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0D331R*4               | EEFUD0D331ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.3                        | 0.012          | EEFUD0D331XR*4              | EEFUD0D331XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0D331LR*4              | EEFUD0D331LE*4                         | 2000                     |      |
|                    |                   | 390                      | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0D391R*4               | EEFUD0D391ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0D391LR*4              | EEFUD0D391LE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0D471LR*4              | EEFUD0D471LE*4                         | 2000                     |      |
|                    | 2.5               | 220                      | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0E221R*4               | EEFUD0E221ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.3                        | 0.012          | EEFUD0E221XR*4              | EEFUD0E221XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0E221LR*4              | EEFUD0E221LE*4                         | 2000                     |      |
|                    |                   | 270                      | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0E271R*4               | EEFUD0E271ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0E271LR*4              | EEFUD0E271LE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0G121R*4               | EEFUD0G121ER*4                         | 2000                     |      |
|                    | 4                 | 120                      | 7.3       | 4.3    | 2.8    | 3.4                        | 0.012          | EEFUD0G121XR*4              | EEFUD0G121XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0G151R*4               | EEFUD0G151ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.3                        | 0.012          | EEFUD0G151XR*4              | EEFUD0G151XE*4                         | 2000                     |      |
|                    |                   | 150                      | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0G151LR*4              | EEFUD0G151LE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 2.5                        | 0.018          | EEFUD0G181R*4               | EEFUD0G181ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0G181LR*4              | EEFUD0G181LE*4                         | 2000                     |      |
|                    | 6.3               | 100                      | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0J101R*4               | EEFUD0J101ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.3                        | 0.012          | EEFUD0J101XR*4              | EEFUD0J101XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0J121R*4               | EEFUD0J121ER*4                         | 2000                     |      |
|                    |                   | 120                      | 7.3       | 4.3    | 2.8    | 3.3                        | 0.012          | EEFUD0J121XR*4              | EEFUD0J121XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 3.4                        | 0.009          | EEFUD0J121LR*4              | —                                      | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 2.8    | 2.5                        | 0.018          | EEFUD0J151R*4               | EEFUD0J151ER*4                         | 2000                     |      |
|                    | 8                 | 7.3                      | 4.3       | 2.8    | 3.4    | 0.009                      | EEFUD0J151LR*4 | —                           | 2000                                   |                          |      |
|                    |                   | 68                       | 7.3       | 4.3    | 2.8    | 3.0                        | 0.015          | EEFUD0K680R                 | EEFUD0K680ER                           | 2000                     |      |
|                    | UE                | 2                        | 270       | 7.3    | 4.3    | 4.2                        | 3.3            | 0.012                       | EEFUE0D271R*4                          | EEFUE0D271ER*4           | 2000 |
|                    |                   |                          |           | 7.3    | 4.3    | 4.2                        | 3.5            | 0.010                       | EEFUE0D271XR*4                         | EEFUE0D271XE*4           | 2000 |
|                    |                   |                          |           | 7.3    | 4.3    | 4.2                        | 3.3            | 0.012                       | EEFUE0D331R*4                          | EEFUE0D331ER*4           | 2000 |
|                    |                   |                          | 330       | 7.3    | 4.3    | 4.2                        | 3.5            | 0.010                       | EEFUE0D331XR*4                         | EEFUE0D331XE*4           | 2000 |
|                    |                   |                          |           | 7.3    | 4.3    | 4.2                        | 3.3            | 0.012                       | EEFUE0D391R*4                          | EEFUE0D391ER*4           | 2000 |
|                    |                   |                          |           | 7.3    | 4.3    | 4.2                        | 3.5            | 0.010                       | EEFUE0D391XR*4                         | EEFUE0D391XE*4           | 2000 |
|                    |                   |                          | 390       | 7.3    | 4.3    | 4.2                        | 3.7            | 0.007                       | EEFUE0D391LR*4                         | EEFUE0D391LE*4           | 2000 |
|                    |                   |                          |           | 7.3    | 4.3    | 4.2                        | 3.3            | 0.012                       | EEFUE0D471R*4                          | EEFUE0D471ER*4           | 2000 |
|                    |                   |                          |           | 7.3    | 4.3    | 4.2                        | 3.5            | 0.010                       | EEFUE0D471XR*4                         | EEFUE0D471XE*4           | 2000 |
|                    |                   |                          | 470       | 7.3    | 4.3    | 4.2                        | 3.7            | 0.007                       | EEFUE0D471LR*4                         | EEFUE0D471LE*4           | 2000 |
| 7.3                |                   |                          |           | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0D561R                 | EEFUE0D561ER                           | 2000                     |      |
| 7.3                |                   |                          |           | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0D561LR                | EEFUE0D561LE                           | 2000                     |      |
| 2.5                |                   | 220                      | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0E221R*4               | EEFUE0E221ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0E221XR*4              | EEFUE0E221XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0E271R*4               | EEFUE0E271ER*4                         | 2000                     |      |
|                    |                   | 270                      | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0E271XR*4              | EEFUE0E271XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0E331R*4               | EEFUE0E331ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0E331XR*4              | EEFUE0E331XE*4                         | 2000                     |      |
|                    |                   | 330                      | 7.3       | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0E331LR*4              | EEFUE0E331LE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0E391R*4               | EEFUE0E391ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0E391LR*4              | EEFUE0E391LE*4                         | 2000                     |      |
|                    |                   | 390                      | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0E471R                 | EEFUE0E471ER                           | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0E471LR                | EEFUE0E471LE                           | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0G181R*4               | EEFUE0G181ER*4                         | 2000                     |      |
| 4                  |                   | 180                      | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0G181XR*4              | EEFUE0G181XE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0G221R*4               | EEFUE0G221ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0G221XR*4              | EEFUE0G221XE*4                         | 2000                     |      |
|                    |                   | 220                      | 7.3       | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0G221LR*4              | EEFUE0G221LE*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0G271R                 | EEFUE0G271ER                           | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0G271LR                | EEFUE0G271LE                           | 2000                     |      |
| 6.3                |                   | 330                      | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0G331R                 | EEFUE0G331ER                           | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0J151R*4               | EEFUE0J151ER*4                         | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0J151XR*4              | EEFUE0J151XE*4                         | 2000                     |      |
|                    |                   | 150                      | 7.3       | 4.3    | 4.2    | 3.3                        | 0.012          | EEFUE0J181R                 | EEFUE0J181ER                           | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.5                        | 0.010          | EEFUE0J181XR                | EEFUE0J181XE                           | 2000                     |      |
|                    |                   |                          | 7.3       | 4.3    | 4.2    | 3.7                        | 0.007          | EEFUE0J181LR                | —                                      | 2000                     |      |
| 8                  | 7.3               | 4.3                      | 4.2       | 3.0    | 0.015  | EEFUE0J221R                | EEFUE0J221ER   | 2000                        |  |                          |      |
|                    | 7.3               | 4.3                      | 4.2       | 3.7    | 0.007  | EEFUE0J221LR               | —              | 2000                        |  |                          |      |
| 8                  | 100               | 7.3                      | 4.3       | 4.2    | 3.3    | 0.012                      | EEFUE0K101R*4  | EEFUE0K101ER*4              | 2000                                   |                          |      |
|                    | 150               | 7.3                      | 4.3       | 4.2    | 3.0    | 0.015                      | EEFUE0K151R    | EEFUE0K151ER                | 2000                                   |                          |      |

\*1: Ripple current (100 kHz/ +20 to +105 °C), \*2: ESR (100 kHz/+20 °C)

\*3: Please confirm EE23 in detail of the Mounting Specifications.

\*4: Please use proposal part number of EE12, 13 when examining it.

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.