



# Radial EEU-FS Series

Contribution to miniaturization performance and higher cap

## 1) Miniaturization proposal



| Can size | Parameters                    | FR    | FS    |
|----------|-------------------------------|-------|-------|
| 8x20     | Capacitance ( $\mu\text{F}$ ) | 1500  | 1800  |
|          | ESR ( $\Omega$ )              | 0.030 | 0.030 |
|          | Ripple current                | 1560  | 1560  |
| 10x20    | Capacitance ( $\mu\text{F}$ ) | 1800  | 2200  |
|          | ESR ( $\Omega$ )              | 0.020 | 0.020 |
|          | Ripple current                | 2180  | 2180  |

|            | Current  | New   |
|------------|--|---|
| Item       | FR<br>16V1800 $\mu\text{F}$ ( $\phi$ 10x20)<br>x 2pcs<br> | FS<br>16V1800 $\mu\text{F}$ ( $\phi$ 8x20)<br>x 2pcs<br> |
| Total Cap. | 3600 $\mu\text{F}$   | 3600 $\mu\text{F}$  |
| PCB Area   | 100% (200mm <sup>2</sup> )   | 64% (128mm <sup>2</sup> )   |

➤ Reduction ratio for PCB area is up to 40%

## 2) CV value increase

| Can size | Parameters                    | FR    | FS    |
|----------|-------------------------------|-------|-------|
| 10x20    | Capacitance ( $\mu\text{F}$ ) | 2200  | 3300  |
|          | ESR ( $\Omega$ )              | 0.020 | 0.020 |
|          | Ripple current                | 2180  | 2180  |
| 12.5x25  | Capacitance ( $\mu\text{F}$ ) | 4700  | 5600  |
|          | ESR ( $\Omega$ )              | 0.015 | 0.015 |
|          | Ripple current                | 3190  | 3190  |

|            | Current   | New   |
|------------|---|---|
| Item       | FR<br>6.3V2200 $\mu\text{F}$ ( $\phi$ 10x20)<br>x 3pcs<br> | FS<br>6.3V3300 $\mu\text{F}$ ( $\phi$ 10x20)<br>x 2pcs<br> |
| Total Cap. | 6600 $\mu\text{F}$  | 6600 $\mu\text{F}$  |
| PCB Area   | 100% (300mm <sup>2</sup> )  | 67% (200mm <sup>2</sup> )   |

➤ CV value increase by 20% – 50%