

USC SERIES

85°C Standard, Snap-in Terminal Type

◆FEATURES

- Load Life : 85°C 3000 hours.
- RoHS compliance.



◆SPECIFICATIONS

| Items                                             | Characteristics                                                                                                                                                                                                                                                                                                                                               |        |      |         |                                            |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|---------|--------------------------------------------|---------|------|------|-------------|-------------|--|----------------------|--------|----|---------|----|---------|----|----------------|-----|-------------|-------------|------|------|------|----------------|------|------|------|------|------|------|------|
| Category Temperature Range                        | -40~+85℃                                                                                                                                                                                                                                                                                                                                                      |        |      |         |                                            |         |      |      | -25~+85℃    |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| Rated Voltage Range                               | 10~250V.DC                                                                                                                                                                                                                                                                                                                                                    |        |      |         |                                            |         |      |      | 315~450V.DC |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| Capacitance Tolerance                             | ±20% (20℃,120Hz)                                                                                                                                                                                                                                                                                                                                              |        |      |         |                                            |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| Leakage Current(MAX)                              | I=3√CV(After 5 minutes application of rated voltage)<br>I=Leakage Current(μA)    C=Capacitance(μF)    V=Rated Voltage(V)                                                                                                                                                                                                                                      |        |      |         |                                            |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| Dissipation Factor(MAX)<br>(tanδ)                 | <table><tr><td>Rated Voltage<br/>(V)</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>160~<br/>400</td><td>420~<br/>450</td></tr><tr><td>tanδ</td><td>0.55</td><td>0.50</td><td>0.45</td><td>0.40</td><td>0.35</td><td>0.30</td><td>0.25</td><td>0.20</td><td>0.15</td><td>0.25</td></tr></table> (20℃,120Hz) |        |      |         |                                            |         |      |      |             |             |  | Rated Voltage<br>(V) | 10     | 16 | 25      | 35 | 50      | 63 | 80             | 100 | 160~<br>400 | 420~<br>450 | tanδ | 0.55 | 0.50 | 0.45           | 0.40 | 0.35 | 0.30 | 0.25 | 0.20 | 0.15 | 0.25 |
| Rated Voltage<br>(V)                              | 10                                                                                                                                                                                                                                                                                                                                                            | 16     | 25   | 35      | 50                                         | 63      | 80   | 100  | 160~<br>400 | 420~<br>450 |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| tanδ                                              | 0.55                                                                                                                                                                                                                                                                                                                                                          | 0.50   | 0.45 | 0.40    | 0.35                                       | 0.30    | 0.25 | 0.20 | 0.15        | 0.25        |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| Endurance                                         | After applying rated voltage with rated ripple current for 3000 hours at 85℃, the capacitors shall meet the following requirements.                                                                                                                                                                                                                           |        |      |         |                                            |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
|                                                   | Capacitance Change                                                                                                                                                                                                                                                                                                                                            |        |      |         | Within ±20% of the initial value.          |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
|                                                   | Dissipation Factor                                                                                                                                                                                                                                                                                                                                            |        |      |         | Not more than 200% of the specified value. |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
|                                                   | Leakage Current                                                                                                                                                                                                                                                                                                                                               |        |      |         | Not more than the specified value.         |         |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
| Low Temperature Stability<br>Impedance Ratio(MAX) | <table><tr><td>Rated Voltage<br/>(V)</td><td colspan="2">10~250</td><td colspan="2">315~400</td><td colspan="2">420~450</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td colspan="2">3</td><td colspan="2">8</td><td colspan="2">12</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td colspan="2">12</td><td colspan="2">—</td><td colspan="2">—</td></tr></table> (120Hz)       |        |      |         |                                            |         |      |      |             |             |  | Rated Voltage<br>(V) | 10~250 |    | 315~400 |    | 420~450 |    | Z(-25℃)/Z(20℃) | 3   |             | 8           |      | 12   |      | Z(-40℃)/Z(20℃) | 12   |      | —    |      | —    |      |      |
|                                                   | Rated Voltage<br>(V)                                                                                                                                                                                                                                                                                                                                          | 10~250 |      | 315~400 |                                            | 420~450 |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
|                                                   | Z(-25℃)/Z(20℃)                                                                                                                                                                                                                                                                                                                                                | 3      |      | 8       |                                            | 12      |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |
|                                                   | Z(-40℃)/Z(20℃)                                                                                                                                                                                                                                                                                                                                                | 12     |      | —       |                                            | —       |      |      |             |             |  |                      |        |    |         |    |         |    |                |     |             |             |      |      |      |                |      |      |      |      |      |      |      |

◆MULTIPLIER FOR RIPPLE CURRENT

| Frequency (Hz) | 60 (50) | 120  | 500  | 1k   | 10k≤ |
|----------------|---------|------|------|------|------|
| Coefficient    |         |      |      |      |      |
| 10~100WV       | 0.90    | 1.00 | 1.05 | 1.10 | 1.15 |
| 160~250WV      | 0.80    | 1.00 | 1.20 | 1.30 | 1.50 |
| 315~450WV      | 0.80    | 1.00 | 1.20 | 1.25 | 1.40 |

◆OPTION

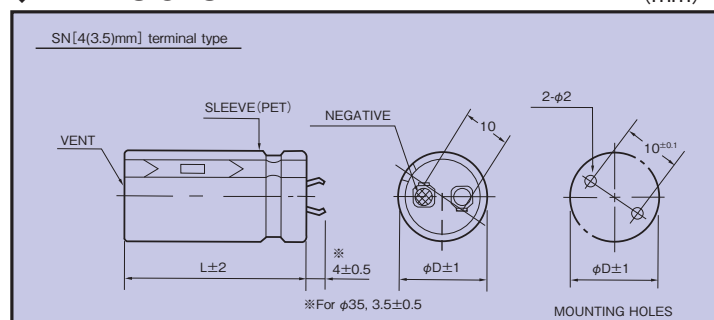
|                          | Code |
|--------------------------|------|
| PET Sleeve without plate | EFC  |

◆PART NUMBER

□□□ USC □□□□□ M □□□ SN DXL  
 Rated Voltage Series Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆DIMENSIONS

(mm)



**◆ STANDARD SIZE**

| Cap<br>(μF) | V.DC<br>φD | 10    |       |       |       |       | 16    |       |       |      |     |
|-------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|
|             |            | φ20   | φ22   | φ25   | φ30   | φ35   | φ20   | φ22   | φ25   | φ30  | φ35 |
| 8200        |            |       |       |       |       |       | 20×25 | 2.56  |       |      |     |
| 10000       |            | 20×25 | 2.22  |       |       |       | 20×30 | 2.85  | 22×25 | 2.85 |     |
| 12000       |            | 20×30 | 2.44  | 22×25 | 2.41  |       | 20×35 | 3.20  | 22×30 | 3.20 |     |
| 15000       |            | 20×35 | 2.90  | 22×30 | 2.88  | 25×25 | 2.88  |       |       |      |     |
| 18000       |            | 20×40 | 3.31  | 22×35 | 3.22  | 25×30 | 3.08  |       |       |      |     |
| 22000       |            |       |       | 25×30 | 3.66  | 30×25 | 3.58  |       |       |      |     |
| 27000       |            |       | 22×45 | 4.04  | 25×35 | 4.04  | 30×30 | 3.99  |       |      |     |
| 33000       |            |       | 22×50 | 4.58  | 25×40 | 4.56  | 30×30 | 4.58  |       |      |     |
| 39000       |            |       |       | 25×45 | 5.29  | 30×35 | 5.21  | 35×30 | 5.05  |      |     |
| 47000       |            |       |       | 25×50 | 5.78  | 30×40 | 5.78  | 35×35 | 5.55  |      |     |
| 56000       |            |       |       |       |       | 30×45 | 6.59  | 35×35 | 6.40  |      |     |
| 68000       |            |       |       |       |       | 30×50 | 7.50  | 35×40 | 7.48  |      |     |
| 82000       |            |       |       |       |       | 35×50 | 8.50  |       |       |      |     |

| Cap<br>(μF) | V.DC<br>φD | 25   |       |       |       |       | 35    |       |       |       |       |       |       |      |
|-------------|------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|             |            | φ20  | φ22   | φ25   | φ30   | φ35   | φ20   | φ22   | φ25   | φ30   | φ35   |       |       |      |
| 3300        |            |      |       |       |       |       | 20×25 | 2.14  |       |       |       |       |       |      |
| 3900        |            |      |       |       |       |       | 20×30 | 2.28  |       |       |       |       |       |      |
| 4700        |            |      |       |       |       |       | 20×35 | 2.46  | 22×25 | 2.46  |       |       |       |      |
| 5600        | 20×25      | 2.33 |       |       |       |       | 20×40 | 2.79  | 22×30 | 2.79  | 25×25 | 2.79  |       |      |
| 6800        | 20×30      | 2.56 | 22×25 | 2.56  |       |       |       | 22×35 | 2.89  | 25×30 | 2.89  |       |       |      |
| 8200        | 20×35      | 2.91 | 22×30 | 2.91  |       |       |       | 22×40 | 3.47  | 25×30 | 3.47  | 30×25 | 3.47  |      |
| 10000       | 20×40      | 3.18 | 22×35 | 3.18  | 25×25 | 3.18  |       | 22×45 | 3.59  | 25×35 | 3.59  | 30×30 | 3.59  |      |
| 12000       |            |      | 22×40 | 3.53  | 25×30 | 3.53  |       | 22×50 | 4.51  | 25×40 | 4.51  | 30×30 | 4.51  |      |
| 15000       |            |      | 22×45 | 4.08  | 25×35 | 4.08  | 30×25 | 4.08  |       | 30×35 | 4.80  | 35×30 | 4.80  |      |
| 18000       |            |      | 22×50 | 4.68  | 25×40 | 4.68  | 30×30 | 4.68  |       |       | 30×40 | 5.70  | 35×35 | 5.70 |
| 22000       |            |      |       | 25×45 | 5.19  | 30×35 | 5.19  | 35×30 | 5.19  |       | 30×45 | 6.38  | 35×40 | 6.38 |
| 27000       |            |      |       | 25×50 | 6.02  | 30×40 | 6.02  | 35×35 | 6.02  |       |       |       | 35×45 | 6.90 |
| 33000       |            |      |       |       |       | 30×45 | 6.75  | 35×40 | 6.75  |       |       |       | 35×50 | 7.49 |
| 39000       |            |      |       |       |       | 30×50 | 7.56  | 35×45 | 7.56  |       |       |       |       |      |
| 47000       |            |      |       |       |       |       | 35×50 | 8.30  |       |       |       |       |       |      |

| Cap<br>(μF) | V.DC<br>φD | 50   |       |       |       |       | 63    |       |       |       |       |       |      |       |      |
|-------------|------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
|             |            | φ20  | φ22   | φ25   | φ30   | φ35   | φ20   | φ22   | φ25   | φ30   | φ35   |       |      |       |      |
| 1500        |            |      |       |       |       |       | 20×25 | 1.69  |       |       |       |       |      |       |      |
| 1800        |            |      |       |       |       |       | 20×30 | 2.04  | 22×25 | 2.04  |       |       |      |       |      |
| 2200        | 20×25      | 2.07 |       |       |       |       | 20×35 | 2.40  | 22×30 | 2.40  |       |       |      |       |      |
| 2700        | 20×30      | 2.21 | 22×25 | 2.21  |       |       | 20×40 | 2.52  | 22×35 | 2.52  | 25×25 | 2.52  |      |       |      |
| 3300        | 20×35      | 2.41 | 22×30 | 2.41  |       |       |       | 22×40 | 2.69  | 25×30 | 2.69  |       |      |       |      |
| 3900        | 20×40      | 2.72 | 22×30 | 2.72  | 25×25 | 2.72  |       | 22×45 | 3.10  | 25×35 | 3.10  | 30×25 | 3.10 |       |      |
| 4700        |            |      | 22×35 | 3.01  | 25×30 | 3.01  |       | 22×50 | 3.49  | 25×40 | 3.49  | 30×30 | 3.49 |       |      |
| 5600        |            |      | 22×40 | 3.43  | 25×35 | 3.43  | 30×25 | 3.43  |       | 25×45 | 3.81  | 30×35 | 3.81 |       |      |
| 6800        |            |      | 22×45 | 3.94  | 25×35 | 3.94  | 30×30 | 3.94  |       | 25×50 | 4.41  | 30×40 | 4.41 | 35×30 | 4.41 |
| 8200        |            |      |       | 25×40 | 4.37  | 30×35 | 4.37  |       |       |       |       | 30×45 | 4.90 | 35×35 | 4.90 |
| 10000       |            |      |       | 25×50 | 5.02  | 30×40 | 5.02  | 35×30 | 5.02  |       |       | 30×50 | 5.49 | 35×40 | 5.49 |
| 12000       |            |      |       |       |       | 30×45 | 5.60  | 35×35 | 5.60  |       |       |       |      | 35×45 | 6.30 |
| 15000       |            |      |       |       |       | 30×50 | 6.44  | 35×40 | 6.44  |       |       |       |      |       |      |
| 18000       |            |      |       |       |       |       | 35×45 | 6.71  |       |       |       |       |      |       |      |

| Cap<br>(μF) | V.DC<br>φD | 80          |             |             |             |             | 100         |             |             |             |             |
|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|             |            | φ20         | φ22         | φ25         | φ30         | φ35         | φ20         | φ22         | φ25         | φ30         | φ35         |
| 680         |            |             |             |             |             |             | 20×25; 1.66 |             |             |             |             |
| 820         |            |             |             |             |             |             | 20×30; 1.86 | 22×25; 1.86 |             |             |             |
| 1000        |            | 20×25; 1.56 |             |             |             |             | 20×30; 2.02 | 22×30; 2.02 |             |             |             |
| 1200        |            | 20×30; 1.80 | 22×25; 1.80 |             |             |             | 20×35; 2.12 | 22×30; 2.12 | 25×25; 2.12 |             |             |
| 1500        |            | 20×30; 2.10 | 22×30; 2.10 |             |             |             | 20×40; 2.45 | 22×35; 2.45 | 25×30; 2.45 |             |             |
| 1800        |            | 20×35; 2.30 | 22×30; 2.30 | 25×25; 2.30 |             |             |             | 22×40; 2.77 | 25×30; 2.77 | 30×25; 2.77 |             |
| 2200        |            | 20×40; 2.53 | 22×35; 2.53 | 25×30; 2.53 |             |             |             | 22×45; 3.12 | 25×35; 3.12 | 30×30; 3.12 |             |
| 2700        |            |             | 22×40; 2.93 | 25×35; 2.93 | 30×25; 2.93 |             |             |             | 25×40; 3.61 | 30×30; 3.61 |             |
| 3300        |            |             | 22×45; 3.25 | 25×35; 3.25 | 30×30; 3.25 |             |             |             | 25×50; 4.06 | 30×35; 4.06 | 35×30; 4.06 |
| 3900        |            |             |             | 25×40; 3.62 | 30×35; 3.62 |             |             |             |             | 30×40; 4.60 | 35×35; 4.60 |
| 4700        |            |             |             | 25×45; 4.28 | 30×40; 4.28 | 35×30; 4.28 |             |             |             | 30×45; 5.13 | 35×40; 5.13 |
| 5600        |            |             |             |             | 30×45; 4.55 | 35×35; 4.55 |             |             |             |             | 35×45; 5.75 |
| 6800        |            |             |             |             | 30×45; 5.83 | 35×40; 5.83 |             |             |             |             | 35×50; 6.01 |
| 8200        |            |             |             |             |             | 35×45; 6.40 |             |             |             |             |             |
| 10000       |            |             |             |             |             | 35×50; 7.03 |             |             |             |             |             |

Ripple Current (A r.m.s./120Hz, 85°C)

Case Size φD×L(mm)

**◆STANDARD SIZE**

| Cap<br>(μF) | V.DC<br>φD | 160         |             |             |             |             | 180         |             |             |             |             |
|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|             |            | φ20         | φ22         | φ25         | φ30         | φ35         | φ20         | φ22         | φ25         | φ30         | φ35         |
| 270         |            | 20×25: 1.28 |             |             |             |             | 20×25: 1.29 |             |             |             |             |
| 330         |            | 20×25: 1.55 |             |             |             |             | 20×30: 1.77 | 22×25: 1.49 |             |             |             |
| 390         |            | 20×30: 1.63 | 22×25: 1.63 |             |             |             | 20×30: 1.84 | 22×25: 1.84 |             |             |             |
| 470         |            | 20×30: 1.90 | 22×30: 1.86 | 25×25: 1.86 |             |             | 20×35: 1.91 | 22×30: 1.91 | 25×25: 2.08 |             |             |
| 560         |            | 20×35: 2.14 | 22×30: 2.15 | 25×25: 2.15 |             |             | 20×40: 2.15 | 22×35: 2.25 | 25×25: 2.25 |             |             |
| 680         |            | 20×40: 2.35 | 22×35: 2.35 | 25×30: 2.33 | 30×25: 2.33 |             |             | 22×35: 2.48 | 25×30: 2.50 | 30×25: 2.46 |             |
| 820         |            |             | 22×40: 2.68 | 25×30: 2.65 | 30×25: 2.64 |             |             | 22×40: 2.86 | 25×35: 2.75 | 30×25: 2.69 |             |
| 1000        |            |             | 22×45: 3.02 | 25×35: 3.00 | 30×30: 2.96 |             |             | 22×50: 3.10 | 25×40: 3.06 | 30×30: 3.10 |             |
| 1200        |            |             |             | 25×40: 3.43 | 30×30: 3.41 | 35×30: 3.40 |             |             | 25×45: 3.63 | 30×35: 3.55 | 35×30: 3.49 |
| 1500        |            |             |             | 25×50: 3.96 | 30×35: 3.96 | 35×30: 3.94 |             |             |             | 30×40: 4.10 | 35×35: 4.02 |
| 1800        |            |             |             |             | 30×40: 4.31 | 35×35: 4.28 |             |             |             | 30×45: 4.55 | 35×35: 4.54 |
| 2200        |            |             |             |             | 30×50: 4.96 | 35×40: 4.96 |             |             |             |             | 35×40: 4.83 |
| 2700        |            |             |             |             |             | 35×45: 5.57 |             |             |             |             | 35×50: 5.30 |

| Cap<br>(μF) | V.DC<br>φD | 200         |             |             |             |             | 220         |             |             |             |             |
|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|             |            | φ20         | φ22         | φ25         | φ30         | φ35         | φ20         | φ22         | φ25         | φ30         | φ35         |
| 220         |            | 20×25: 1.19 |             |             |             |             | 20×25: 1.23 |             |             |             |             |
| 270         |            | 20×25: 1.39 | 22×25: 1.37 |             |             |             | 20×30: 1.46 | 22×25: 1.42 |             |             |             |
| 330         |            | 20×30: 1.56 | 22×25: 1.51 |             |             |             | 20×35: 1.64 | 22×30: 1.59 |             |             |             |
| 390         |            | 20×35: 1.74 | 22×30: 1.73 | 25×25: 1.71 |             |             | 20×35: 1.79 | 22×30: 1.80 | 25×25: 1.75 |             |             |
| 470         |            | 20×35: 2.03 | 22×30: 1.97 | 25×25: 1.95 |             |             | 20×40: 2.12 | 22×35: 2.06 | 25×30: 2.08 |             |             |
| 560         |            | 20×40: 2.18 | 22×35: 2.18 | 25×30: 2.15 | 30×25: 2.15 |             |             | 22×40: 2.22 | 25×35: 2.38 | 30×25: 2.18 |             |
| 680         |            |             | 22×40: 2.48 | 25×30: 2.48 | 30×25: 2.48 |             |             | 22×45: 2.62 | 25×35: 2.56 | 30×30: 2.52 |             |
| 820         |            |             | 22×45: 2.81 | 25×35: 2.79 | 30×30: 2.75 |             |             |             | 25×45: 2.91 | 30×35: 2.84 | 35×30: 2.79 |
| 1000        |            |             | 22×50: 3.28 | 25×40: 3.28 | 30×35: 3.15 |             |             |             |             | 30×35: 3.36 | 35×30: 3.29 |
| 1200        |            |             |             | 25×45: 3.61 | 30×35: 3.61 | 35×30: 3.57 |             |             |             | 30×40: 3.72 | 35×35: 3.68 |
| 1500        |            |             |             |             | 30×45: 4.13 | 35×35: 4.06 |             |             |             | 30×50: 4.18 | 35×40: 4.10 |
| 1800        |            |             |             |             | 30×50: 4.60 | 35×40: 4.59 |             |             |             |             | 35×45: 4.52 |
| 2200        |            |             |             |             |             | 35×45: 5.25 |             |             |             |             |             |

| Cap<br>(μF) | V.DC<br>φD | 250         |             |             |             |             | 315         |             |             |             |             |
|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|             |            | φ20         | φ22         | φ25         | φ30         | φ35         | φ20         | φ22         | φ25         | φ30         | φ35         |
| 150         |            |             |             |             |             |             | 20×30: 1.00 |             |             |             |             |
| 180         |            | 20×25: 1.20 |             |             |             |             | 20×35: 1.13 | 22×30: 1.29 | 25×25: 1.38 |             |             |
| 220         |            | 20×25: 1.26 | 22×25: 1.24 |             |             |             | 20×35: 1.29 | 22×30: 1.41 | 25×25: 1.47 |             |             |
| 270         |            | 20×30: 1.42 | 22×25: 1.50 |             |             |             |             | 22×35: 1.68 | 25×30: 1.70 |             |             |
| 330         |            | 20×35: 1.68 | 22×30: 1.66 | 25×25: 1.61 |             |             |             | 22×40: 1.91 | 25×35: 1.94 | 30×25: 1.98 |             |
| 390         |            | 20×40: 1.92 | 22×35: 1.88 | 25×30: 1.88 |             |             |             | 22×45: 2.07 | 25×40: 2.11 | 30×30: 2.15 |             |
| 470         |            |             | 22×35: 2.15 | 25×35: 2.15 | 30×25: 2.04 |             |             |             | 25×50: 2.31 | 30×35: 2.38 | 35×30: 2.36 |
| 560         |            |             | 22×40: 2.48 | 25×35: 2.35 | 30×25: 2.35 |             |             |             |             | 30×35: 2.63 | 35×30: 2.69 |
| 680         |            |             |             | 25×40: 2.67 | 30×30: 2.71 |             |             |             |             | 30×45: 2.80 | 35×35: 3.05 |
| 820         |            |             |             | 25×45: 3.01 | 30×35: 2.98 | 35×30: 2.96 |             |             |             | 30×50: 3.28 | 35×40: 3.45 |
| 1000        |            |             |             |             | 30×40: 3.56 | 35×35: 3.48 |             |             |             |             | 35×45: 3.57 |
| 1200        |            |             |             |             | 30×45: 3.99 | 35×35: 3.84 |             |             |             |             |             |
| 1500        |            |             |             |             |             | 35×40: 4.33 |             |             |             |             |             |
| 1800        |            |             |             |             |             | 35×50: 4.54 |             |             |             |             |             |

| Cap<br>(μF) | V.DC<br>φD | 350         |             |             |             |             | 385         |             |             |             |             |
|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|             |            | φ20         | φ22         | φ25         | φ30         | φ35         | φ20         | φ22         | φ25         | φ30         | φ35         |
| 68          |            |             |             |             |             |             | 20×25: 0.68 |             |             |             |             |
| 82          |            |             |             |             |             |             | 20×30: 0.74 | 22×25: 0.76 |             |             |             |
| 100         |            |             |             |             |             |             | 20×30: 0.86 | 22×30: 0.89 |             |             |             |
| 120         |            | 20×30: 0.96 | 22×25: 1.04 |             |             |             | 20×35: 0.96 | 22×30: 0.98 | 25×25: 1.02 |             |             |
| 150         |            | 20×30: 1.10 | 22×30: 1.20 | 25×25: 1.22 |             |             | 20×35: 1.10 | 22×35: 1.12 | 25×30: 1.14 |             |             |
| 180         |            | 20×35: 1.24 | 22×30: 1.34 | 25×25: 1.37 |             |             | 20×40: 1.27 | 22×35: 1.27 | 25×30: 1.30 | 30×25: 1.37 |             |
| 220         |            |             | 22×35: 1.47 | 25×30: 1.53 | 30×25: 1.54 |             |             | 22×40: 1.42 | 25×35: 1.48 | 30×30: 1.49 |             |
| 270         |            |             | 22×40: 1.70 | 25×35: 1.73 | 30×25: 1.80 |             |             | 22×50: 1.60 | 25×40: 1.61 | 30×30: 1.64 |             |
| 330         |            |             | 22×45: 1.87 | 25×35: 1.97 | 30×30: 2.03 |             |             |             | 25×45: 1.80 | 30×35: 1.85 | 35×30: 1.87 |
| 390         |            |             |             | 25×40: 2.14 | 30×35: 2.23 | 35×30: 2.30 |             |             | 25×50: 2.04 | 30×40: 2.05 | 35×35: 2.07 |
| 470         |            |             |             | 25×50: 2.55 | 30×35: 2.53 | 35×30: 2.55 |             |             |             | 30×45: 2.26 | 35×35: 2.26 |
| 560         |            |             |             |             | 30×40: 2.73 | 35×35: 2.75 |             |             |             | 30×50: 2.57 | 35×40: 2.59 |
| 680         |            |             |             |             | 30×50: 3.15 | 35×40: 3.15 |             |             |             |             | 35×45: 2.80 |
| 820         |            |             |             |             |             | 35×45: 3.47 |             |             |             |             |             |
| 1000        |            |             |             |             |             | 35×50: 3.60 |             |             |             |             |             |

Ripple Current (A r.m.s./120Hz, 85°C)  
Case Size φD×L(mm)

**◆STANDARD SIZE**

| Cap<br>( $\mu$ F) | V.DC<br>$\phi$ D |            | 400        |            |            |  |  | 420        |            |            |            |            |
|-------------------|------------------|------------|------------|------------|------------|--|--|------------|------------|------------|------------|------------|
|                   | $\phi$ 20        | $\phi$ 22  | $\phi$ 25  | $\phi$ 30  | $\phi$ 35  |  |  | $\phi$ 20  | $\phi$ 22  | $\phi$ 25  | $\phi$ 30  | $\phi$ 35  |
| 68                | 20×25:0.75       |            |            |            |            |  |  | 20×25:0.70 |            |            |            |            |
| 82                | 20×30:0.82       | 22×25:0.84 |            |            |            |  |  | 20×30:0.80 | 22×25:0.85 |            |            |            |
| 100               | 20×30:0.95       | 22×30:0.99 |            |            |            |  |  | 20×35:0.90 | 22×30:0.97 | 25×25:0.98 |            |            |
| 120               | 20×35:1.07       | 22×30:1.09 | 25×25:1.13 |            |            |  |  | 20×35:1.04 | 22×30:1.07 | 25×25:1.08 |            |            |
| 150               | 20×40:1.22       | 22×35:1.24 | 25×30:1.27 |            |            |  |  | 20×40:1.17 | 22×35:1.21 | 25×30:1.26 | 30×25:1.30 |            |
| 180               |                  | 22×40:1.41 | 25×30:1.44 | 30×25:1.52 |            |  |  |            | 22×40:1.33 | 25×35:1.42 | 30×25:1.48 |            |
| 220               |                  | 22×45:1.58 | 25×35:1.64 | 30×30:1.66 |            |  |  |            | 22×45:1.55 | 25×35:1.58 | 30×30:1.65 |            |
| 270               |                  |            | 25×40:1.79 | 30×30:1.82 |            |  |  |            |            | 25×40:1.74 | 30×35:1.90 | 35×30:1.94 |
| 330               |                  |            | 25×45:2.00 | 30×35:2.05 | 35×30:2.05 |  |  |            |            | 25×50:2.20 | 30×35:1.98 | 35×35:2.17 |
| 390               |                  |            |            | 30×40:2.26 | 35×35:2.28 |  |  |            |            |            | 30×40:2.22 | 35×35:2.27 |
| 470               |                  |            |            | 30×45:2.51 | 35×40:2.54 |  |  |            |            |            | 30×45:2.50 | 35×40:2.61 |
| 560               |                  |            |            | 30×50:2.85 | 35×40:2.85 |  |  |            |            |            |            | 35×45:2.95 |
| 680               |                  |            |            |            | 35×50:3.10 |  |  |            |            |            |            |            |

| Cap<br>( $\mu$ F) | V.DC<br>$\phi$ D |            | 450        |            |            |  |  |
|-------------------|------------------|------------|------------|------------|------------|--|--|
|                   | $\phi$ 20        | $\phi$ 22  | $\phi$ 25  | $\phi$ 30  | $\phi$ 35  |  |  |
| 56                | 20×25:0.61       |            |            |            |            |  |  |
| 68                | 20×30:0.70       | 22×25:0.71 |            |            |            |  |  |
| 82                | 20×35:0.80       | 22×25:0.86 |            |            |            |  |  |
| 100               | 20×35:0.88       | 22×30:0.95 | 25×25:0.97 |            |            |  |  |
| 120               | 20×40:0.99       | 22×35:1.07 | 25×30:1.09 | 30×25:1.12 |            |  |  |
| 150               |                  | 22×40:1.18 | 25×30:1.25 | 30×25:1.29 |            |  |  |
| 180               |                  | 22×45:1.32 | 25×35:1.40 | 30×30:1.45 |            |  |  |
| 220               |                  |            | 25×40:1.59 | 30×30:1.64 | 35×30:1.66 |  |  |
| 270               |                  |            | 25×45:1.73 | 30×35:1.89 | 35×30:1.90 |  |  |
| 330               |                  |            | 25×50:2.12 | 30×40:2.12 | 35×35:2.15 |  |  |
| 390               |                  |            |            | 30×45:2.35 | 35×40:2.38 |  |  |
| 470               |                  |            |            | 30×50:2.65 | 35×45:2.68 |  |  |
| 560               |                  |            |            |            | 35×50:2.88 |  |  |

Ripple Current (A r.m.s./120Hz, 85°C)

Case Size  $\phi$ D×L(mm)