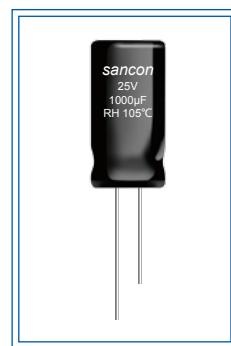


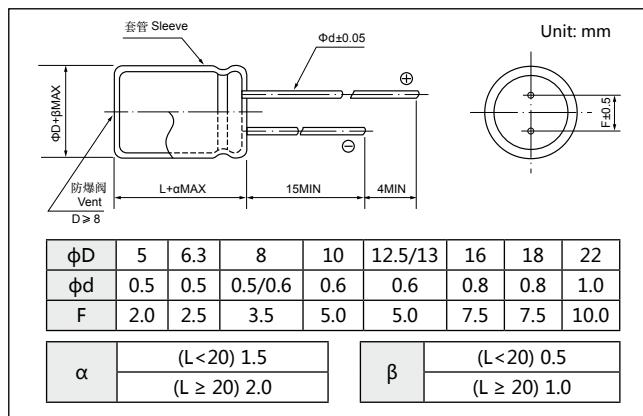
**RH**

高频低阻抗 (CD288HC / CD286 / CD263)

- 105°C , 寿命 2000 小时。Endurance: 105°C 2000 hrs.
- 高频，低阻抗。High frequency, low impedance.
- 符合 RoHS。RoHS Compliant.

**主要技术性能 Specifications**

| 项 目 Item  | 特 性 Performance Characteristics   |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
|---|---|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|
| 工作温度范围<br>Operating Temperature Range                             | -40~+105°C  |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 额定电压范围<br>Rated Voltage Range                                     | 10~450V   |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 标称电容量范围<br>Nominal Capacitance Range                              | 0.47~4700μF   |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 标称电容量允许偏差<br>Capacitance Tolerance                                | ±20%(+20°C,120Hz)   |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 漏电流<br>Leakage Current  | V < 100V, I ≤ 0.01CVor 3μA, Whichever is greater.<br>V ≥ 160V, I ≤ 0.02CVor 10μA, Whichever is greater.<br>Where,I:Max.leakage current (μA),C:Nominal Capacitance(μF),V:Rated voltage(V) ( at 20°C ,After 2 minutes )   |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 损耗角正切值 ( tgδ )<br>Dissipation Factor<br>( +20°C,120Hz )           | U <sub>R</sub> (V)  | 10   | 16   | 25   | 35   | 50   | 63   | 100  | 160  | 200  | 250  | 350  | 400  | 450  |  |  |  |  |  |  |  |  |  |  |  |
|   | tgδ   | 0.16 | 0.14 | 0.12 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.12 | 0.12 | 0.15 |  |  |  |  |  |  |  |  |  |  |  |
|   | 容量大于 1000μF 者 , 每增加 1000μF , 其损耗角正切值增加 0.02。<br>When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase.  |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 温度特性<br>Temperature Characteristics<br>(Impedance ratio at 120Hz) | U <sub>R</sub> (V)  | 10   | 16   | 25   | 35   | 50   | 63   | 100  | 160  | 200  | 250  | 350  | 400  | 450  |  |  |  |  |  |  |  |  |  |  |  |
|   | Z-40°C /+20°C   | 5    |      |      |      | 4    |      |      |      | 7    |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 耐久性<br>Load Life  | +105°C施加带额定纹波电流的额定电压 2000 小时 , 恢复 24 小时后 :<br>After applying rated voltage with specified ripple current for 2000 hours at +105°C and then resumed 24 hours:<br>电容量变化率 Capacitance change : ±20% 初始测量值以内 ±20% of the initial measured value<br>漏 电 流 Leakage current : ≤初始规定值 ≤ the initial specified value<br>损耗角正切值 Dissipation factor : ≤ 2 倍初始规定值 ≤ 200% of the initial specified value |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |
| 高温贮存<br>Shelf Life  | +105°C , 1000 小时贮存后 , 恢复 24 小时后 :<br>After storage for 1000 hours at +105°C , and then resumed 24 hours :<br>电容量变化率 Capacitance change : ±20% 初始测量值以内 ±20% of the initial measured value<br>漏 电 流 Leakage current : ≤ 2 倍初始规定值 ≤ 200% of the initial specified value<br>损耗角正切值 Dissipation factor : ≤ 2 倍初始规定值 ≤ 200% of the initial specified value  |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |

**外形图及尺寸 Diagram of Dimensions****纹波电流修正系数 Multiplier for Ripple Current**

| 频率系数 Frequency coefficient |               | 120        | 1K   | 10K  | 100K |      |
|----------------------------|---------------|------------|------|------|------|------|
| Coefficient                | Frequency(Hz) | 0.47~4.7μF | 0.40 | 0.68 | 0.78 | 1.00 |
|                            | 10~47μF       | 0.50       | 0.76 | 0.87 | 1.00 |      |
|                            | 100~220μF     | 0.70       | 0.85 | 0.90 | 1.00 |      |
|                            | 330~1000μF    | 0.80       | 0.93 | 0.98 | 1.00 |      |
|                            | 2200~4700μF   | 0.90       | 0.95 | 1.00 | 1.00 |      |

## 额定值标准 Standard Size

| Rated Voltage (V <sub>dc</sub> ) | Capacitance (μF) | Size ΦD×L (mm) | tanδ | Impedance (Ω)MAX 20°C /100KHz | Rated ripple current (mAmps) 105°C / 100KHz |
|----------------------------------|------------------|----------------|------|-------------------------------|---|
| 10 (1A)                          | 0.47             | 5×11           | 0.16 | 130.0                         | 15  |
|                                  | 1                | 5×11           | 0.16 | 60.00                         | 20  |
|                                  | 2.2              | 5×11           | 0.16 | 28.00                         | 30  |
|                                  | 3.3              | 5×11           | 0.16 | 18.50                         | 37  |
|                                  | 4.7              | 5×11           | 0.16 | 13.00                         | 42  |
|                                  | 10               | 5×11           | 0.16 | 6.000                         | 50  |
|                                  | 22               | 5×11           | 0.16 | 2.800                         | 76  |
|                                  | 33               | 5×11           | 0.16 | 2.800                         | 84  |
|                                  | 47               | 5×11           | 0.16 | 2.450                         | 94  |
|                                  | 100              | 5×11           | 0.16 | 1.400                         | 91  |
|                                  | 220              | 6.3×11         | 0.16 | 0.650                         | 151   |
|                                  | 330              | 6.3×12         | 0.16 | 0.420                         | 162   |
|                                  | 470              | 8×12           | 0.16 | 0.120                         | 228   |
|                                  | 1000             | 10×16          | 0.16 | 0.140                         | 430   |
|                                  | 2200             | 12.5×20        | 0.18 | 0.065                         | 681   |
|                                  | 3300             | 12.5×20        | 0.20 | 0.042                         | 791   |
|                                  | 4700             | 16×25          | 0.22 | 0.026                         | 1116  |
| 16 (1C)                          | 0.47             | 5×11           | 0.14 | 163.0                         | 15  |
|                                  | 1                | 5×11           | 0.14 | 77.00                         | 20  |
|                                  | 2.2              | 5×11           | 0.14 | 35.00                         | 30  |
|                                  | 3.3              | 5×11           | 0.14 | 23.00                         | 30  |
|                                  | 4.7              | 5×11           | 0.14 | 16.30                         | 42  |
|                                  | 10               | 5×11           | 0.14 | 5.400                         | 50  |
|                                  | 22               | 6.3×11         | 0.14 | 2.450                         | 84  |
|                                  | 33               | 5×11           | 0.14 | 2.300                         | 92  |
|                                  | 47               | 5×11           | 0.14 | 2.000                         | 100   |
|                                  | 100              | 6.3×11         | 0.14 | 1.250                         | 108   |
|                                  | 220              | 6.3×12         | 0.14 | 0.500                         | 191   |
|                                  | 330              | 8×12           | 0.14 | 0.350                         | 205   |
|                                  | 470              | 10×12          | 0.14 | 0.245                         | 272   |
|                                  | 1000             | 10×16          | 0.14 | 0.125                         | 513   |
|                                  | 2200             | 12.5×20        | 0.16 | 0.050                         | 807   |
|                                  | 3300             | 13×25          | 0.18 | 0.035                         | 1034  |
|                                  | 4700             | 16×25          | 0.20 | 0.025                         | 1283  |
| 25 (1E)                          | 0.47             | 5×11           | 0.14 | 163.0                         | 15  |
|                                  | 1                | 5×11           | 0.14 | 77.00                         | 20  |
|                                  | 2.2              | 5×11           | 0.14 | 35.00                         | 30  |
|                                  | 3.3              | 5×11           | 0.14 | 23.00                         | 30  |
|                                  | 4.7              | 5×11           | 0.14 | 16.30                         | 42  |
|                                  | 10               | 5×11           | 0.14 | 5.400                         | 50  |
|                                  | 22               | 6.3×11         | 0.14 | 2.450                         | 84  |
|                                  | 33               | 5×11           | 0.14 | 2.300                         | 92  |
|                                  | 47               | 5×11           | 0.14 | 2.000                         | 100   |
|                                  | 100              | 6.3×11         | 0.14 | 1.250                         | 108   |
|                                  | 220              | 6.3×12         | 0.14 | 0.500                         | 191   |
|                                  | 330              | 8×12           | 0.14 | 0.350                         | 205   |
|                                  | 470              | 10×12          | 0.14 | 0.245                         | 272   |
|                                  | 1000             | 10×16          | 0.14 | 0.125                         | 513   |
|                                  | 2200             | 12.5×20        | 0.16 | 0.050                         | 807   |
|                                  | 3300             | 13×25          | 0.18 | 0.035                         | 1034  |
|                                  | 4700             | 16×25          | 0.20 | 0.025                         | 1283  |
| 35 (1V)                          | 33               | 6.3×11         | 0.10 | 1.600                         | 104   |
|                                  | 47               | 6.3×11         | 0.10 | 1.300                         | 124   |
|                                  | 100              | 8×12           | 0.10 | 0.800                         | 152   |
|                                  | 220              | 10×12          | 0.10 | 0.350                         | 252   |
|                                  | 330              | 10×16          | 0.10 | 0.230                         | 312   |
|                                  | 470              | 10×16          | 0.10 | 0.160                         | 416   |
|                                  | 1000             | 12.5×20        | 0.10 | 0.080                         | 775   |
|                                  | 2200             | 16×25          | 0.12 | 0.035                         | 1133  |
|                                  | 3300             | 16×30          | 0.14 | 0.023                         | 1472  |
|                                  | 33               | 6.3×12         | 0.10 | 2.300                         | 136   |
| 50 (1H)                          | 47               | 6.3×12         | 0.10 | 1.150                         | 146   |
|                                  | 100              | 8×12           | 0.10 | 0.600                         | 152   |
|                                  | 220              | 10×16          | 0.10 | 0.280                         | 291   |
|                                  | 330              | 10×20          | 0.10 | 0.185                         | 348   |
|                                  | 470              | 12.5×20        | 0.10 | 0.130                         | 475   |
|                                  | 1000             | 16×25          | 0.10 | 0.060                         | 860   |
|                                  | 2200             | 18×35          | 0.12 | 0.028                         | 1422  |
| 63 (1J)                          | 47               | 8×12           | 0.10 | 1.630                         | 188   |
|                                  | 100              | 10×12          | 0.10 | 0.540                         | 169   |
|                                  | 220              | 10×20          | 0.10 | 0.245                         | 325   |
|                                  | 330              | 12.5×20        | 0.10 | 0.160                         | 397   |
|                                  | 470              | 13×25          | 0.10 | 0.115                         | 531   |
|                                  | 1000             | 16×30          | 0.10 | 0.054                         | 941   |
| 100 (2A)                         | 100              | 12.5×20        | 0.10 | 0.770                         | 249   |
|                                  | 220              | 16×25          | 0.10 | 0.350                         | 459   |
|                                  | 330              | 16×25          | 0.10 | 0.230                         | 493   |
|                                  | 470              | 16×30          | 0.10 | 0.160                         | 645   |

| Rated Voltage (V <sub>dc</sub> ) | Capacitance (μF) | Size ΦD×L (mm) | tanδ | Impedance (Ω)MAX 20°C /100KHz | Rated ripple current (mAmps) 105°C / 100KHz |
|----------------------------------|------------------|----------------|------|-------------------------------|---|
| 160 (2C)                         | 2.2              | 6.3×11         | 0.10 | 35.00                         | 32  |
|                                  | 3.3              | 6.3×11         | 0.10 | 23.30                         | 40  |
|                                  | 4.7              | 8×12           | 0.10 | 16.40                         | 57  |
|                                  | 10               | 10×12          | 0.10 | 7.700                         | 76  |
|                                  | 22               | 10×16          | 0.10 | 3.500                         | 190   |
|                                  | 33               | 12.5×20        | 0.10 | 2.330                         | 250   |
|                                  | 47               | 12.5×20        | 0.10 | 1.640                         | 240   |
|                                  | 100              | 16×25          | 0.10 | 0.770                         | 385   |
| 200 (2D)                         | 220              | 16×30          | 0.10 | 0.350                         | 642   |
|                                  | 1                | 5×11           | 0.10 | 96.20                         | 20  |
|                                  | 2.2              | 6.3×11         | 0.10 | 43.60                         | 40  |
|                                  | 3.3              | 6.3×11         | 0.10 | 29.00                         | 47  |
|                                  | 4.7              | 8×12           | 0.10 | 20.40                         | 50  |
|                                  | 10               | 10×12          | 0.10 | 9.620                         | 76  |
|                                  | 22               | 10×20          | 0.10 | 4.360                         | 190   |
|                                  | 33               | 12.5×20        | 0.10 | 2.900                         | 202   |
|                                  | 47               | 12.5×20        | 0.10 | 2.040                         | 330   |
|                                  | 56               | 12.5×25        | 0.10 | -                             | 340   |
|                                  | 68               | 13×25          | 0.10 | -                             | 380   |
|                                  | 100              | 16×25          | 0.10 | -                             | 410   |
| 250 (2E)                         | 120              | 16×25          | 0.10 | -                             | 450   |
|                                  | 150              | 18×25          | 0.10 | -                             | 510   |
|                                  | 220              | 18×30          | 0.10 | -                             | 715   |
|                                  | 0.47             | 6.3×11         | 0.08 | 244.7                         | 22  |
|                                  | 1                | 6.3×11         | 0.08 | 115.4                         | 30  |
|                                  | 2.2              | 6.3×11         | 0.08 | 52.20                         | 40  |
|                                  | 3.3              | 8×12           | 0.08 | 34.80                         | 55  |
|                                  | 4.7              | 8×12           | 0.08 | 24.47                         | 77  |
|                                  | 10               | 10×16          | 0.08 | 11.54                         | 128   |
|                                  | 22               | 12.5×20        | 0.08 | 5.220                         | 196   |
|                                  | 33               | 12.5×20        | 0.08 | 3.480                         | 240   |
|                                  | 47               | 13×25          | 0.08 | 2.440                         | 360   |
| 350 (2V)                         | 56               | 13×25          | 0.08 | -                             | 410   |
|                                  | 82               | 16×25          | 0.08 | -                             | 545   |
|                                  | 100              | 16×30          | 0.08 | -                             | 570   |
|                                  | 220              | 18×35          | 0.08 | -                             | 815   |
|                                  | 330              | 18×45          | 0.08 | -                             | 900   |
|                                  | 470              | 22×45          | 0.08 | -                             | 985   |
|                                  | 0.47             | 6.3×11         | 0.08 | -                             | 20  |
|                                  | 1                | 6.3×11         | 0.08 | -                             | 27  |
|                                  | 2.2              | 8×12           | 0.08 | -                             | 47  |
|                                  | 3.3              | 10×12          | 0.08 | -                             | 65  |
| 400 (2G)                         | 4.7              | 10×16          | 0.08 | -                             | 90  |
|                                  | 10               | 10×20          | 0.08 | -                             | 116   |
|                                  | 22               | 13×25          | 0.08 | -                             | 260   |
|                                  | 33               | 16×25          | 0.08 | -                             | 350   |
|                                  | 47               | 16×30          | 0.08 | -                             | 460   |
|                                  | 1                | 8×11           | 0.08 | -                             | 45  |
|                                  | 2.2              | 8×12           | 0.08 | -                             | 75  |
|                                  | 3.3              | 10×12          | 0.08 | -                             | 100   |
|                                  | 4.7              | 10×12          | 0.08 | -                             | 130   |
|                                  | 1                | 10×20          | 0.08 | -                             | 158   |
| 450 (2W)                         | 22               | 12.5×20        | 0.08 | -                             | 290   |
|                                  | 33               | 16×20          | 0.08 | -                             | 298   |
|                                  | 47               | 16×25          | 0.08 | -                             | 390   |
|                                  | 56               | 16×25          | 0.08 | -                             | 390   |
|                                  | 68               | 16×30          | 0.08 | -                             | 430   |
|                                  | 82               | 18×30          | 0.08 | -                             | 570   |
|                                  | 100              | 18×30          | 0.08 | -                             | 770   |
|                                  | 120              | 22×31          | 0.08 | -                             | 860   |
|                                  | 150              | 22×31          | 0.08 | -                             | 970   |
|                                  | 1                | 8×12           | 0.08 | -                             | 45  |
| 500 (2W)                         | 2.2              | 10×12          | 0.08 | -                             | 75  |
|                                  | 3.3              | 10×16          | 0.08 | -                             | 100   |
|                                  | 4.7              | 10×20          | 0.08 | -                             | 130   |
|                                  | 10               | 12.5×20        | 0.08 | -                             | 158   |
|                                  | 22               | 16×20          | 0.08 | -                             | 356   |
|                                  | 33               | 16×25          | 0.08 | -                             | 470   |
|                                  | 47               | 18×25          | 0.08 | -                             | 550   |
|                                  | 56               | 18×25          | 0.08 | -                             | 560   |
|                                  | 68               | 18×30          | 0.08 | -                             | 570   |
|                                  | 82               | 18×30          | 0.08 | -                             | 650   |
| 1000 (2W)                        | 100              | 18×35          | 0.08 | -                             | 770   |
|                                  | 120              | 18×40          | 0.08 | -                             | 1070  |
|                                  | 150              | 22×40          | 0.08 | -                             | 1260  |
|                                  | 220              | 22×46          | 0.08 | -                             | 1430  |

可根据客户需要定制产品 Customer products are available on request.