

# MINIATURE SIZE

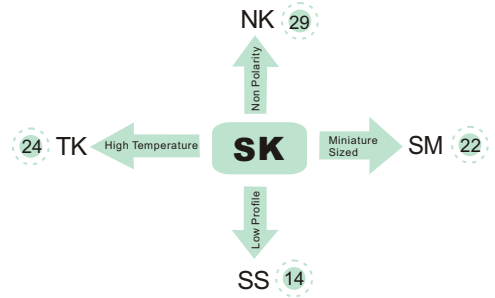
# SK

Series

Standard , For General Purposes

# JAMICON®

- SK series has high value of CV for general purposes .

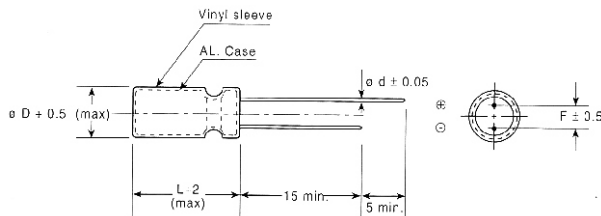


## SPECIFICATION

| Item                                      | Characteristic  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|---|---|-----------------------------------|------|------|------|--------|---------|---------|------|------|------|------|------|------|-----|
| Operation Temperature Range               | -40~+85°C   | -25~+85°C                         |      |      |      |        |         |         |      |      |      |      |      |      |     |
| Rated working Voltage                     | 6.3~400VDC  | 450VDC                            |      |      |      |        |         |         |      |      |      |      |      |      |     |
| Capacitance Tolerance (120Hz 25°C)        | ±20%(M)   |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
| Leakage Current (25°C)                    | I ≤ 0.01CV or 4 (μA)  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | I ≤ 0.03CV + 40 (μA) max  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
| Surge Voltage (25°C)                      | Whichever is greater after 3 minutes I: Leakage Current (μA) C: Rated Capacitance(μF) V: Working Voltage ( V )  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | W.V.  | 6.3                               | 10   | 16   | 25   | 35     | 50      | 63      | 100  | 160  | 200  | 250  | 350  | 400  | 450 |
| S.V.                                      | 8   | 13                                | 20   | 32   | 44   | 63     | 79      | 125     | 200  | 250  | 300  | 400  | 450  | 500  |     |
| Dissipation Factor ( tan δ ) (120Hz 25°C) | Add 0.02 per 1000 μF for more than 1000 μF  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | W.V.  | 6.3                               | 10   | 16   | 25   | 35     | 50      | 63      | 100  | 160  | 200  | 250  | 350  | 400  | 450 |
| tan δ                                     | 0.22  | 0.19                              | 0.16 | 0.14 | 0.12 | 0.10   | 0.10    | 0.08    | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 |     |
| Low Temperature Stability                 | Impedance ratio at 120Hz  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Rated Voltage (V)   | 6.3                               | 10   | 16   | 25   | 35~100 | 160~250 | 350~400 | 450  |      |      |      |      |      |     |
|   | -25°C/+25°C   | 4                                 | 3    | 2    | 2    | 2      | 3       | 6       | 15   |      |      |      |      |      |     |
| -40°C/+25°C                               | 8   | 6                                 | 4    | 3    | 3    | 6      | 6       | —       |      |      |      |      |      |      |     |
| Load Life                                 | After 2000 hours application of WV at +85°C, the capacitor shall meet the following limits.   |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Capacitance Change  | ≤ ±20% of initial value           |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Dissipation Factor  | ≤ 150% of initial specified value |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Leakage current   | ≤ initial specified value         |      |      |      |        |         |         |      |      |      |      |      |      |     |
| Shelf Life                                | At +85°C no voltage application after 1000 hours and then through the aging treatment ( reference JIS C 5102 4.4 ) , the capacitor shall meet the following limits. |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Capacitance Change  | ≤ ±20% of initial value           |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Dissipation Factor  | ≤ 200% of initial specified value |      |      |      |        |         |         |      |      |      |      |      |      |     |
|   | Leakage current   | ≤ 200% of initial specified value |      |      |      |        |         |         |      |      |      |      |      |      |     |
| Reference Standard                        | JIS C 5102  |                                   |      |      |      |        |         |         |      |      |      |      |      |      |     |

## DIMENSIONS (mm)

| φ D | 5   | 6.3 | 8   | 10  | 13  | 16  | 18  | 22   | 25   |
|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| F   | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 | 10.0 | 12.5 |
| d   | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 1.0  | 1.0  |



## RIPPLE CURRENT COEFFICIENTS

| Temperature(°C) | 65   | 75   | 85   |
|-----------------|------|------|------|
| Multiplier      | 1.25 | 1.14 | 1.00 |

| Frequency(Hz) | 60         | 120  | 1K   | ≥ 10K |
|---------------|------------|------|------|-------|
| W.V.          | Multiplier |      |      |       |
| 6.3~25V       | 0.85       | 1.00 | 1.10 | 1.20  |
| 35~100V       | 0.80       | 1.00 | 1.15 | 1.25  |
| 160~250V      | 0.75       | 1.00 | 1.25 | 1.40  |
| 350~450V      | 0.70       | 1.00 | 1.30 | 1.50  |

● CASE SIZE & MAX RIPPLE CURRENT

Case size : DxL (mm)  
 Max ripple current : mA (rms)  
 (R.C.) : 85°C 120Hz

| μF    | V(Code)<br>Code Item | 6.3 (0J) |      | 10 (1A) |      | 16 (1C) |      |
|-------|----------------------|----------|------|---------|------|---------|------|
|       |                      | DxL      | R.C. | DxL     | R.C. | DxL     | R.C. |
| 47    | 470                  |          |      |         | →    | 5x11    | 110  |
| 100   | 101                  | 5x11     | 140  | 5x11    | 150  | 6.3x11  | 180  |
| 220   | 221                  | 6.3x11   | 230  | 6.3x11  | 250  | 8x11    | 310  |
| 330   | 331                  | 6.3x11   | 290  | 8x11    | 350  | 8x11    | 380  |
| 470   | 471                  | 8x11     | 390  | 8x11    | 420  | 10x13   | 500  |
| 1000  | 102                  | 10x13    | 620  | 10x16   | 730  | 10x21   | 900  |
| 2200  | 222                  | 10x21    | 1090 | 13x21   | 1270 | 13x21   | 1370 |
| 3300  | 332                  | 13x21    | 1390 | 13x21   | 1480 | 13x26   | 1750 |
| 4700  | 472                  | 13x26    | 1730 | 16x25   | 1770 | 16x32   | 2090 |
| 6800  | 682                  | 16x25    | 1880 | 16x32   | 2200 | 18x35   | 2580 |
|       |                      |          |      |         |      | 22x30   | 2700 |
| 8200  | 822                  | 16x32    | 2210 | 18x35   | 2560 | 18x42   | 2920 |
|       |                      |          |      | 22x30   | 2690 | 22x35   | 3010 |
| 10000 | 103                  | 16x32    | 2310 | 18x35   | 2670 | 18x42   | 3020 |
|       |                      |          |      | 22x35   | 2990 | 22x40   | 3310 |
| 15000 | 153                  | 18x35    | 2820 | 18x42   | 3150 |         |      |
|       |                      |          |      | 22x40   | 3450 | 22x50   | 3930 |
| 22000 | 223                  |          |      | 22x50   | 4040 | 25x50   | 4450 |

All blank voltage on sleeve marking is the same voltage as " → " point to.

| μF    | V(Code)<br>Code Item | 25 (1E) |      | 35 (1V) |      | 50 (1H) |      |
|-------|----------------------|---------|------|---------|------|---------|------|
|       |                      | DxL     | R.C. | DxL     | R.C. | DxL     | R.C. |
| 0.47  | R47                  |         |      |         | →    | 5x11    | 14   |
| 1     | 010                  |         |      |         | →    | 5x11    | 20   |
| 2.2   | 2R2                  |         |      |         | →    | 5x11    | 30   |
| 3.3   | 3R3                  |         |      |         | →    | 5x11    | 37   |
| 4.7   | 4R7                  |         |      |         | →    | 5x11    | 44   |
| 10    | 100                  | 5x11    | 55   | 5x11    | 60   | 5x11    | 65   |
| 22    | 220                  | 5x11    | 80   | 5x11    | 90   | 5x11    | 95   |
| 33    | 330                  | 5x11    | 100  | 5x11    | 110  | 6.3x11  | 130  |
| 47    | 470                  | 5x11    | 120  | 6.3x11  | 150  | 6.3x11  | 160  |
| 100   | 101                  | 6.3x11  | 200  | 8x11    | 240  | 8x11    | 270  |
| 220   | 221                  | 8x11    | 330  | 10x13   | 390  | 10x16   | 470  |
| 330   | 331                  | 10x13   | 450  | 10x16   | 530  | 10x21   | 650  |
| 470   | 471                  | 10x16   | 580  | 10x21   | 710  | 13x21   | 850  |
| 1000  | 102                  | 13x21   | 1050 | 13x21   | 1130 | 16x25   | 1310 |
| 2200  | 222                  | 13x26   | 1590 | 16x32   | 1830 | 18x35   | 2200 |
|       |                      |         |      |         |      | 22x30   | 2310 |
| 3300  | 332                  | 16x32   | 1980 | 18x35   | 2330 | 18x42   | 2710 |
|       |                      |         |      | 22x30   | 2450 | 22x40   | 2960 |
| 4700  | 472                  | 18x35   | 2430 | 18x42   | 2770 |         |      |
|       |                      | 22x35   | 2720 | 22x35   | 2860 | 22x45   | 3380 |
| 6800  | 682                  | 18x42   | 2910 |         |      |         |      |
|       |                      | 22x40   | 3180 | 22x45   | 3490 | 25x50   | 4110 |
| 8200  | 822                  | 22x45   | 3480 | 22x50   | 3780 |         |      |
| 10000 | 103                  | 22x50   | 3770 | 25x50   | 4170 |         |      |
| 15000 | 153                  | 25x50   | 4320 |         |      |         |      |

| $\mu F$ | V(Code) |      | 63 (1J) |      | 100 (2A) |      |
|---------|---------|------|---------|------|----------|------|
|         | Code    | Item | DxL     | R.C. | DxL      | R.C. |
| 0.47    | R47     |      |         | →    | 5x11     | 16   |
| 1       | 010     |      |         | →    | 5x11     | 23   |
| 2.2     | 2R2     |      |         | →    | 5x11     | 34   |
| 3.3     | 3R3     |      |         | →    | 5x11     | 42   |
| 4.7     | 4R7     |      |         | →    | 5x11     | 50   |
| 10      | 100     |      | 5x11    | 65   | 8x11     | 80   |
| 22      | 220     |      | 6.3x11  | 110  | 6.3x11   | 140  |
| 33      | 330     |      | 6.3x11  | 130  | 10x13    | 190  |
| 47      | 470     |      | 8x11    | 180  | 10x16    | 240  |
| 100     | 101     |      | 10x13   | 290  | 13x21    | 440  |
| 220     | 221     |      | 10x21   | 530  | 16x25    | 690  |
| 330     | 331     |      | 13x21   | 710  | 16x25    | 840  |
| 470     | 471     |      | 13x26   | 930  | 16x32    | 1120 |
| 1000    | 102     |      | 16x32   | 1460 | 18x42    | 1970 |
|         |         |      | 22x30   | 1700 | 22x35    | 2030 |
| 2200    | 222     |      | 22x35   | 2460 | 25x50    | 3390 |
| 3300    | 332     |      | 22x50   | 3270 |          |      |
| 4700    | 472     |      | 25x50   | 3800 |          |      |

All blank voltage on sleeve marking is the same voltage as " → " point to.

| $\mu F$ | V(Code) |      | 160 (2C) |      | 200 (2D) |      | 250 (2E) |      |
|---------|---------|------|----------|------|----------|------|----------|------|
|         | Code    | Item | DxL      | R.C. | DxL      | R.C. | DxL      | R.C. |
| 0.47    | R47     |      | 6.3x11   | 13   | 6.3x11   | 14   | 6.3x11   | 15   |
| 1       | 010     |      | 6.3x11   | 19   | 6.3x11   | 20   | 6.3x11   | 22   |
| 2.2     | 2R2     |      | 6.3x11   | 28   | 6.3x11   | 30   | 6.3x11   | 33   |
| 3.3     | 3R3     |      | 6.3x11   | 35   | 6.3x11   | 37   | 8x11     | 46   |
| 4.7     | 4R7     |      | 6.3x11   | 41   | 8x11     | 50   | 8x11     | 55   |
| 10      | 100     |      | 8x11     | 70   | 10x13    | 80   | 10x16    | 95   |
| 22      | 220     |      | 10x16    | 120  | 10x21    | 150  | 13x21    | 180  |
| 33      | 330     |      | 10x21    | 170  | 13x21    | 200  | 13x21    | 210  |
| 47      | 470     |      | 13x21    | 220  | 13x21    | 240  | 13x26    | 280  |
| 100     | 101     |      | 13x26    | 350  | 16x25    | 360  | 16x32    | 440  |
| 220     | 221     |      | 16x35    | 580  | 18x42    | 730  |          |      |
|         |         |      | 22x30    | 650  | 22x30    | 700  | 22x35    | 810  |
| 330     | 331     |      | 18x42    | 830  |          |      |          |      |
|         |         |      | 22x30    | 800  | 22x40    | 970  | 22x45    | 1110 |
| 470     | 471     |      | 22x40    | 1080 | 22x45    | 1220 | 25x45    | 1430 |
| 560     | 561     |      | 22x45    | 1240 | 22x50    | 1400 | 25x50    | 1630 |
| 680     | 681     |      | 22x50    | 1430 | 25x50    | 1650 |          |      |
| 820     | 821     |      | 25x50    | 1690 |          |      |          |      |

| $\mu F$ | V(Code) |      | 350 (2V) |      | 400 (2G) |      | 450 (2W) |      |
|---------|---------|------|----------|------|----------|------|----------|------|
|         | Code    | Item | DxL      | R.C. | DxL      | R.C. | DxL      | R.C. |
| 0.47    | R47     |      | 8x11     | 15   | 8x11     | 15   | 8x11     | 15   |
| 1       | 010     |      | 8x11     | 22   | 8x11     | 23   | 8x11     | 22   |
| 2.2     | 2R2     |      | 8x11     | 32   | 8x11     | 33   | 10x13    | 35   |
| 3.3     | 3R3     |      | 10x13    | 43   | 10x13    | 45   | 10x16    | 47   |
| 4.7     | 4R7     |      | 10x13    | 50   | 10x16    | 60   | 10x18    | 60   |
| 10      | 100     |      | 10x21    | 95   | 13x21    | 110  | 13x21    | 100  |
| 22      | 220     |      | 13x21    | 150  | 13x26    | 170  | 16x25    | 160  |
| 33      | 330     |      | 13x26    | 200  | 16x25    | 200  | 16x32    | 220  |
| 47      | 470     |      | 16x25    | 230  | 16x32    | 270  | 18x35    | 290  |
|         |         |      |          |      | 22x30    | 310  |          |      |
| 100     | 101     |      | 18x35    | 420  |          |      |          |      |
|         |         |      | 22x35    | 470  | 22x40    | 520  |          |      |
| 150     | 151     |      | 22x40    | 610  | 25x50    | 750  |          |      |
| 220     | 221     |      | 22x50    | 820  |          |      |          |      |