

Jamicon Series : TK

Teapo Series : SH

Standard Series

**550V  
LINE  
UP**



■ Endurance: 105°C 2000hours

■ Recommended Applications :For high quality , reliability application, high CV product

■ Corresponding product to RoHS

**SPECIFICATIONS**

| Item  | Characteristics  |                                       |      |      |                       |        |         |         |                       |         |         |         |
|---|--|---------------------------------------|------|------|-----------------------|--------|---------|---------|-----------------------|---------|---------|---------|
|   | -55~+105°C   |                                       |      |      | -40~+105°C            |        |         |         | -25~+105°C            |         |         |         |
| Category Temperature Range  | -55~+105°C   |                                       |      |      | -40~+105°C            |        |         |         | -25~+105°C            |         |         |         |
| Rated Voltage Range   | 6.3 ~ 100VDC   |                                       |      |      | 160 ~ 450VDC          |        |         |         | 500~550VDC            |         |         |         |
| Rated Capacitance Range   | 1~ 22000 µF  |                                       |      |      | 1 ~ 470 µF            |        |         |         | 2.2~82 µF             |         |         |         |
| Capacitance Tolerance   | ± 20 % (120Hz , 20°C)  |                                       |      |      | ± 20 % (120Hz , 20°C) |        |         |         | ± 20 % (120Hz , 20°C) |         |         |         |
| Leakage Current (20°C)  | I=0.01CV or 3(µA)whichever is greater.   |                                       |      |      | I=0.03CV+10(µA)       |        |         |         | I=0.04CV+100(µA)      |         |         |         |
| (After rated voltage applied for 2 minutes)I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) |  |                                       |      |      |                       |        |         |         |                       |         |         |         |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20°C)  | WV   | 6.3                                   | 10   | 16   | 25                    | 35     | 50      | 63~80   | 100                   | 160~250 | 350~450 | 500~550 |
|   | tan δ  | 0.24                                  | 0.20 | 0.17 | 0.15                  | 0.12   | 0.10    | 0.10    | 0.08                  | 0.15    | 0.20    | 0.25    |
| When nominal capacitance is over 1000 µF,tan δ shall be added 0.02 to the listed value with increase of every 1000 µF.        |  |                                       |      |      |                       |        |         |         |                       |         |         |         |
| Low Temperature Stability<br>Impedance Ratio (MAX)  | WV   |                                       |      |      |                       |        |         |         |                       |         |         |         |
|   | Z(120Hz)   | 6.3                                   | 10   | 16   | 25                    | 35~100 | 160~250 | 350~400 | 450                   | 500~550 |         |         |
|   | Z-25°C / Z+20°C  | 4                                     | 3    | 2    | 2                     | 2      | 3       | 4       | 4                     | 6       |         |         |
|   |  | 8                                     | 6    | 4    | 4                     | 3      | 4       | 10      | —                     | —       |         |         |
| Endurance   | After applying rated voltage with rated ripple current for 2000hours at 105°C ,<br>the capacitors shall meet the following requirements. |                                       |      |      |                       |        |         |         |                       |         |         |         |
|   | Capacitance change   | Within ± 20% of initial value         |      |      |                       |        |         |         |                       |         |         |         |
|   | D.F. (tan δ)   | Not more than 200% of specified value |      |      |                       |        |         |         |                       |         |         |         |
|   | Leakage current  | initial specified value or less       |      |      |                       |        |         |         |                       |         |         |         |
| Shelf Life  | After leaving capacitors under no load at 105°C for 1000 hours.the capacitors shall meet the same requirement as Endurance.              |                                       |      |      |                       |        |         |         |                       |         |         |         |

**Dimensions [mm]**



|     |     |     |     |     |     |      |      |     |     |
|-----|-----|-----|-----|-----|-----|------|------|-----|-----|
| φ D | 5   | 6.3 | 8   | 10  | 13  | 16   | 18   | 22  | 25  |
| p   | 2.0 | 2.5 | 3.5 | 5.0 | 7.5 | 10.0 | 12.5 |     |     |
| φ d | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 | 1.0  | 1.0  |     |     |
| a   | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0  | 2.0  | 2.0 | 2.0 |

**Multiplier for Ripple Current**

|            |      |      |      |      |
|------------|------|------|------|------|
| Freq. (Hz) | 60   | 120  | 1K   | ≥10K |
| 6.3~25V    | 0.85 | 1.00 | 1.10 | 1.20 |
| 35 ~ 100V  | 0.80 | 1.00 | 1.15 | 1.25 |
| 160 ~ 200V | 0.75 | 1.00 | 1.25 | 1.40 |
| 350 ~ 450V | 0.70 | 1.00 | 1.30 | 1.80 |
| 500~550V   | 0.60 | 1.00 | 1.10 | 1.15 |

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| Rated Voltage<br>(SurageVoltage)<br>(V) | Cap<br>( $\mu$ F) | Case size<br>$\Phi$ DxL(mm) | $\tan \delta$ | Ripple current<br>(mA/rms105°C)<br>(120Hz) | Rated Voltage<br>(SurageVoltage)<br>(V) | Cap<br>( $\mu$ F) | Case size<br>$\Phi$ DxL(mm) | $\tan \delta$ | Ripple current<br>(mA/rms105°C)<br>(120Hz) |
|---|-------------------|-----------------------------|---------------|--|---|-------------------|-----------------------------|---------------|--|
| 6.3 (8)                                 | 100               | 5x11                        | 0.24          | 110  | 25 (32)                                 | 470               | 8x15                        | 0.15          | 420  |
|   | 150               | 5x11                        | 0.24          | 130  |   |                   | 10x12.5                     | 0.15          | 440  |
|   | 220               | 6.3x11                      | 0.24          | 180  |   | 680               | 10x15                       | 0.15          | 560  |
|   | 330               | 6.3x11                      | 0.24          | 220  |   | 1000              | 10x20                       | 0.15          | 790  |
|   | 470               | 6.3x11                      | 0.24          | 270  |   | 1500              | 13x20                       | 0.15          | 1050                                       |
|   | 680               | 8x11                        | 0.24          | 375  |   | 2200              | 13x25                       | 0.17          | 1370                                       |
|   | 1000              | 8x15                        | 0.24          | 500  |   | 3300              | 16x25                       | 0.19          | 1500                                       |
|   |                   | 10x12.5                     | 0.24          | 520  |   | 4700              | 16x32                       | 0.21          | 1990                                       |
|   | 1500              | 10x15                       | 0.24          | 600  |   | 6800              | 18x36                       | 0.25          | 2480                                       |
|   | 2200              | 10x20                       | 0.26          | 850  |   | 35 (44)           | 10                          | 5x11          | 0.12                                       |
|   | 3300              | 13x20                       | 0.28          | 1150                                       | 15                                      |                   | 5x11                        | 0.12          | 60   |
|   | 4700              | 13x20                       | 0.30          | 1350                                       | 22                                      |                   | 5x11                        | 0.12          | 70   |
|   | 6800              | 13x25                       | 0.34          | 1680                                       | 33                                      |                   | 5x11                        | 0.12          | 90   |
|   | 10000             | 16x32                       | 0.42          | 2250                                       | 47                                      |                   | 5x11                        | 0.12          | 110  |
|   | 15000             | 16x36                       | 0.52          | 2320                                       | 68                                      |                   | 6.3x11                      | 0.12          | 140  |
| 22000                                   | 18x40             | 0.64                        | 2810          | 100  | 6.3x11                                  |                   | 0.12                        | 170           |  |
| 10 (13)                                 | 47                | 5x11                        | 0.20          | 80   | 150                                     |                   | 8x11                        | 0.12          | 235  |
|   | 68                | 5x11                        | 0.20          | 95   | 220                                     |                   | 10x12.5                     | 0.12          | 330  |
|   | 100               | 5x11                        | 0.20          | 120  | 330                                     |                   | 10x12.5                     | 0.12          | 410  |
|   | 150               | 5x11                        | 0.20          | 130  | 470                                     |                   | 10x15                       | 0.12          | 530  |
|   | 220               | 6.3x11                      | 0.20          | 190  | 680                                     |                   | 10x20                       | 0.12          | 720  |
|   | 330               | 6.3x11                      | 0.20          | 250  | 1000                                    |                   | 13x20                       | 0.12          | 1020                                       |
|   |                   | 8x11                        | 0.20          | 275  | 1500                                    |                   | 13x25                       | 0.12          | 1350                                       |
|   | 470               | 6.3x11                      | 0.20          | 290  | 2200                                    |                   | 16x25                       | 0.14          | 1640                                       |
|   |                   | 8x11                        | 0.20          | 315  | 3300                                    |                   | 16x36                       | 0.16          | 2070                                       |
|   | 680               | 8x11                        | 0.20          | 365  | 4700                                    |                   | 18x36                       | 0.18          | 2410                                       |
|   |                   | 10x12.5                     | 0.20          | 420  | 50 (63)                                 |                   | 3.3                         | 5x11          | 0.10                                       |
|   | 1000              | 8x15                        | 0.20          | 505  |   | 4.7               | 5x11                        | 0.10          | 36   |
|   |                   | 10x12.5                     | 0.20          | 560  |   | 6.8               | 5x11                        | 0.10          | 40   |
|   | 1500              | 10x20                       | 0.20          | 820  |   | 10                | 5x11                        | 0.10          | 55   |
|   | 2200              | 10x20                       | 0.22          | 970  |   | 15                | 5x11                        | 0.10          | 65   |
|   | 3300              | 13x20                       | 0.24          | 1280                                       |   | 22                | 5x11                        | 0.10          | 80   |
|   | 4700              | 13x25                       | 0.26          | 1590                                       |   | 33                | 5x11                        | 0.10          | 95   |
|   | 6800              | 16x25                       | 0.30          | 1940                                       |   | 47                | 6.3x11                      | 0.10          | 130  |
| 10000                                   | 16x36             | 0.38                        | 2330          | 68   |   | 8x11              | 0.10                        | 180           |  |
| 15000                                   | 18x36             | 0.48                        | 2710          | 100  |   | 8x11              | 0.10                        | 220           |  |
| 16 (20)                                 | 33                | 5x11                        | 0.17          | 75   |   | 150               | 10x12.5                     | 0.10          | 310  |
|   | 47                | 5x11                        | 0.17          | 90   |   | 220               | 10x12.5                     | 0.10          | 370  |
|   | 68                | 5x11                        | 0.17          | 105  |   |                   | 10x15                       | 0.10          | 415  |
|   | 100               | 5x11                        | 0.17          | 130  |   | 330               | 10x20                       | 0.10          | 535  |
|   | 150               | 6.3x11                      | 0.17          | 180  |   | 470               | 10x20                       | 0.10          | 660  |
|   | 220               | 6.3x11                      | 0.17          | 220  |   |                   | 13x20                       | 0.10          | 760  |
|   | 330               | 8x11                        | 0.17          | 310  |   | 680               | 13x20                       | 0.10          | 850  |
|   | 470               | 8x11                        | 0.17          | 375  |   | 1000              | 13x25                       | 0.10          | 1210                                       |
|   | 680               | 8x15                        | 0.17          | 465  | 1500                                    | 16x25             | 0.10                        | 1500          |  |
|   |                   | 10x12.5                     | 0.17          | 485  | 2200                                    | 16x32             | 0.12                        | 1850          |  |
|   | 1000              | 10x15                       | 0.17          | 650  |   | 16x36             | 0.12                        | 1950          |  |
|   | 1500              | 10x20                       | 0.17          | 900  | 3300                                    | 18x36             | 0.14                        | 2360          |  |
|   | 2200              | 13x20                       | 0.19          | 1180                                       | 4700                                    | 18x45             | 0.16                        | 2500          |  |
|   | 3300              | 13x25                       | 0.21          | 1510                                       | 63 (79)                                 | 10                | 5x11                        | 0.10          | 55   |
|   | 4700              | 16x25                       | 0.23          | 1830                                       |   | 15                | 5x11                        | 0.10          | 65   |
|   | 6800              | 16x32                       | 0.27          | 2120                                       |   | 22                | 6.3x11                      | 0.10          | 90   |
|   | 10000             | 18x36                       | 0.35          | 2590                                       |   | 33                | 6.3x11                      | 0.10          | 110  |
|   | 25 (32)           | 22                          | 5x11          | 0.15                                       |   | 65                | 47                          | 8x11          | 0.10                                       |
| 33                                      |                   | 5x11                        | 0.15          | 80   |   | 68                | 10x12.5                     | 0.10          | 205  |
| 47                                      |                   | 5x11                        | 0.15          | 95   |   | 100               | 10x12.5                     | 0.10          | 260  |
| 68                                      |                   | 6.3x11                      | 0.15          | 125  |   | 150               | 10x15                       | 0.10          | 330  |
| 100                                     |                   | 6.3x11                      | 0.15          | 160  |   | 220               | 10x20                       | 0.10          | 465  |
| 150                                     |                   | 8x11                        | 0.15          | 220  |   | 330               | 13x20                       | 0.10          | 650  |
| 220                                     |                   | 8x11                        | 0.15          | 270  |   | 470               | 13x20                       | 0.10          | 750  |
|   |                   | 8x11                        | 0.15          | 330  |   | 680               | 16x25                       | 0.10          | 1000                                       |
| 330                                     |                   | 10x12.5                     | 0.15          | 375  | 1000                                    | 16x32             | 0.10                        | 1380          |  |

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| Rated Voltage<br>(SurageVoltage)<br>(V) | Cap<br>( $\mu$ F) | Case size<br>$\Phi$ DxL(mm) | $\tan \delta$ | Ripple current<br>(mA/rms105°C)<br>(120Hz) | Rated Voltage<br>(SurageVoltage)<br>(V) | Cap<br>( $\mu$ F) | Case size<br>$\Phi$ DxL(mm) | $\tan \delta$ | Ripple current<br>(mA/rms105°C)<br>(120Hz) |
|---|-------------------|-----------------------------|---------------|--|---|-------------------|-----------------------------|---------------|--|
| 63 (79)                                 | 1500              | 16x36                       | 0.10          | 1650                                       | 350 (400)                               | 3.3               | 8x11                        | 0.20          | 37   |
|   | 2200              | 18x36                       | 0.12          | 2080                                       |   | 4.7               | 8x11                        | 0.20          | 45   |
| 100 (125)                               | 10                | 6.3x11                      | 0.08          | 65   |   | 10                | 10x15                       | 0.20          | 80   |
|   | 15                | 6.3x11                      | 0.08          | 75   |   | 22                | 13x20                       | 0.20          | 150  |
|   | 22                | 8x11                        | 0.08          | 115  |   | 33                | 13x25                       | 0.20          | 200  |
|   | 33                | 8x11                        | 0.08          | 140  |   | 47                | 16x25                       | 0.20          | 260  |
|   | 47                | 10x12.5                     | 0.08          | 190  | 100                                     | 18x32             | 0.20                        | 410           |  |
|   | 68                | 10x15                       | 0.08          | 240  | 400 (450)                               | 1                 | 6.3x11                      | 0.20          | 17   |
|   | 100               | 10x20                       | 0.08          | 340  |   | 2.2               | 8x11                        | 0.20          | 32   |
|   | 150               | 13x20                       | 0.08          | 480  |   | 3.3               | 8x11                        | 0.20          | 39   |
|   | 220               | 13x25                       | 0.08          | 630  |   | 4.7               | 8x11                        | 0.20          | 46   |
|   | 330               | 16x25                       | 0.08          | 830  |   |                   | 10x12.5                     | 0.20          | 55   |
| 470                                     | 16x32             | 0.08                        | 1000          | 6.8  |   | 8x15              | 0.20                        | 60            |  |
| 680                                     | 16x36             | 0.08                        | 1200          |  |   | 10x12.5           | 0.20                        | 65            |  |
| 160 (200)                               | 1                 | 5x11                        | 0.15          | 17   |   | 10                | 10x15                       | 0.20          | 85   |
|   | 2.2               | 6.3x11                      | 0.15          | 26   |   | 15                | 10x20                       | 0.20          | 100  |
|   | 3.3               | 6.3x11                      | 0.15          | 36   |   | 22                | 13x20                       | 0.20          | 155  |
|   | 4.7               | 6.3x11                      | 0.15          | 43   |   | 33                | 13x25                       | 0.20          | 200  |
|   | 6.8               | 8x11                        | 0.15          | 54   |   | 47                | 16x25                       | 0.20          | 270  |
|   | 10                | 8x11                        | 0.15          | 70   |   | 68                | 16x32                       | 0.20          | 410  |
|   | 15                | 10x12.5                     | 0.15          | 90   |   |                   | 18x25                       | 0.20          | 390  |
|   | 22                | 10x15                       | 0.15          | 115  |   | 100               | 18x32                       | 0.20          | 500  |
|   | 33                | 10x20                       | 0.15          | 160  | 120                                     | 18x32             | 0.20                        | 520           |  |
|   | 47                | 10x20                       | 0.15          | 195  |   | 18x36             | 0.20                        | 550           |  |
|   | 68                | 13x20                       | 0.15          | 260  | 150                                     | 18x40             | 0.20                        | 620           |  |
|   | 100               | 13x25                       | 0.15          | 350  | 420 (470)                               | 1                 | 6.3x11                      | 0.20          | 17   |
|   | 150               | 16x25                       | 0.15          | 435  |   | 2.2               | 8x11                        | 0.20          | 29   |
|   | 220               | 16x32                       | 0.15          | 560  |   | 3.3               | 8x11                        | 0.20          | 34   |
| 330                                     | 18x36             | 0.15                        | 800           | 4.7  |   | 10x12.5           | 0.20                        | 55            |  |
| 470                                     | 18x40             | 0.15                        | 970           | 6.8  |   | 10x15             | 0.20                        | 68            |  |
| 200 (250)                               | 1                 | 6.3x11                      | 0.15          | 19   |   | 10                | 10x20                       | 0.20          | 98   |
|   | 2.2               | 6.3x11                      | 0.15          | 28   |   | 15                | 13x20                       | 0.20          | 130  |
|   | 3.3               | 6.3x11                      | 0.15          | 36   |   | 22                | 13x25                       | 0.20          | 155  |
|   | 4.7               | 8x11                        | 0.15          | 50   |   | 33                | 16x25                       | 0.20          | 205  |
|   | 6.8               | 8x11                        | 0.15          | 60   |   | 47                | 16x25                       | 0.20          | 235  |
|   | 10                | 10x12.5                     | 0.15          | 80   |   | 68                | 16x32                       | 0.20          | 400  |
|   | 15                | 10x15                       | 0.15          | 110  |   |                   | 18x25                       | 0.20          | 380  |
|   | 22                | 10x20                       | 0.15          | 140  |   | 100               | 18x36                       | 0.20          | 490  |
|   | 33                | 13x20                       | 0.15          | 200  | 120                                     | 18x40             | 0.20                        | 530           |  |
|   | 47                | 13x20                       | 0.15          | 245  | 150                                     | 18x45             | 0.20                        | 570           |  |
|   | 68                | 13x25                       | 0.15          | 310  | 450 (500)                               | 1.0               | 6.3x11                      | 0.20          | 18   |
|   | 100               | 16x25                       | 0.15          | 390  |   |                   | 8x11                        | 0.20          | 22   |
|   | 150               | 16x32                       | 0.15          | 480  |   | 2.2               | 8x11                        | 0.20          | 30   |
|   | 220               | 16x36                       | 0.15          | 675  |   |                   | 10x12.5                     | 0.20          | 37   |
|   |                   | 18x32                       | 0.15          | 685  |   | 3.3               | 8x15                        | 0.20          | 42   |
| 330                                     | 18x36             | 0.15                        | 840           | 10x12.5                                    |   |                   | 0.20                        | 40            |  |
| 250 (300)                               | 1                 | 6.3x11                      | 0.15          | 21   |   | 4.7               | 10x12.5                     | 0.20          | 52   |
|   | 2.2               | 6.3x11                      | 0.15          | 31   |   | 6.8               | 10x15                       | 0.20          | 62   |
|   | 3.3               | 8x11                        | 0.15          | 44   |   | 10                | 10x20                       | 0.20          | 85   |
|   | 4.7               | 8x11                        | 0.15          | 52   |   | 15                | 13x20                       | 0.20          | 120  |
|   | 6.8               | 8x11                        | 0.15          | 62   | 22                                      | 13x25             | 0.20                        | 160           |  |
|   | 10                | 10x12.5                     | 0.15          | 85   | 33                                      | 16x25             | 0.20                        | 210           |  |
|   | 15                | 10x15                       | 0.15          | 110  | 47                                      | 16x25             | 0.20                        | 260           |  |
|   | 22                | 10x20                       | 0.15          | 140  | 68                                      | 18x32             | 0.20                        | 370           |  |
|   | 33                | 13x20                       | 0.15          | 210  | 100                                     | 18x36             | 0.20                        | 495           |  |
|   | 47                | 13x25                       | 0.15          | 280  | 120                                     | 18x40             | 0.20                        | 565           |  |
|   | 68                | 13x25                       | 0.15          | 310  | 150                                     | 18x45             | 0.20                        | 650           |  |
|   | 100               | 16x25                       | 0.15          | 420  | 500 (550)                               | 2.2               | 8x11                        | 0.25          | 25   |
|   | 150               | 16x32                       | 0.15          | 550  |   | 3.3               | 8x16                        | 0.25          | 30   |
|   | 220               | 18x36                       | 0.15          | 740  |   | 4.7               | 8x16                        | 0.25          | 34   |
| 350 (400)                               | 1                 | 6.3x11                      | 0.20          | 18   |   |                   | 10x12.5                     | 0.25          | 38   |
|   | 2.2               | 8x11                        | 0.20          | 31   |   | 6.8               | 10x15                       | 0.25          | 50   |

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| Rated Voltage<br>(SurageVoltage)<br>(V) | Cap<br>( $\mu F$ ) | Case size<br>$\Phi$ D $\times$ L(mm) | tan $\delta$ | Ripple current<br>(mA/rms105 $^{\circ}$ C)<br>(120Hz) |
|---|--------------------|--------------------------------------|--------------|---|
| 500 (550)                               | 8.2                | 10x16                                | 0.25         | 60  |
|   | 10                 | 10x20                                | 0.25         | 70  |
|   |                    | 13x16                                | 0.25         | 80  |
|   | 15                 | 13x20                                | 0.25         | 90  |
|   | 18                 | 13x20                                | 0.25         | 100   |
|   | 22                 | 13x25                                | 0.25         | 115   |
|   |                    | 16x20                                | 0.25         | 120   |
|   | 33                 | 18x25                                | 0.25         | 180   |
|   | 47                 | 16x32                                | 0.25         | 180   |
|   |                    | 18x30                                | 0.25         | 230   |
|   | 68                 | 18x32                                | 0.25         | 250   |
| 82                                      | 18x40              | 0.25                                 | 335          |   |
| 550 (600)                               | 4.7                | 10x12.5                              | 0.25         | 35  |
|   | 5.6                | 10x12.5                              | 0.25         | 45  |
|   | 6.8                | 10x15                                | 0.25         | 55  |

| Rated Voltage<br>(SurageVoltage)<br>(V) | Cap<br>( $\mu F$ ) | Case size<br>$\Phi$ D $\times$ L(mm) | tan $\delta$ | Ripple current<br>(mA/rms105 $^{\circ}$ C)<br>(120Hz) |
|---|--------------------|--------------------------------------|--------------|---|
| 550 (600)                               | 8.2                | 10x15                                | 0.25         | 60  |
|   |                    | 13x16                                | 0.25         | 70  |
|   | 10                 | 10x20                                | 0.25         | 75  |
|   |                    | 13x16                                | 0.25         | 80  |
|   | 12                 | 10x20                                | 0.25         | 85  |
|   |                    | 13x16                                | 0.25         | 90  |
|   | 15                 | 13x20                                | 0.25         | 95  |
|   | 18                 | 13x20                                | 0.25         | 120   |
|   | 22                 | 13x25                                | 0.25         | 140   |
|   | 33                 | 16x30                                | 0.25         | 180   |
|   | 47                 | 16x32                                | 0.25         | 250   |
|   |                    | 18x30                                | 0.25         | 260   |
|   | 68                 | 18x36                                | 0.25         | 330   |
|   | 82                 | 18x40                                | 0.25         | 380   |