

| 35 Volt d.c. | Tolerance ±10% | DC Leakage Current (μA) | Impedance (Ω) 100kHz 20°C | Mftrs. List No.   | Order Code |
|--------------|----------------|-------------------------|---------------------------|-------------------|------------|
| 1            | 8.5            | 4.5                     | 0.5                       | TAP105K035CCSY-LF | 110-0562   |
| 2.2          | 9              | 4.5                     | 0.6                       | TAP225K035CCSY-LF | 110-0563   |
| 4.7          | 10.5           | 5.5                     | 1.3                       | TAP475K035CCSY-LF | 110-0564   |
| 10           | 11.5           | 6                       | 2.8                       | TAP106K035CCSY-LF | 110-0565   |
| 22           | 14             | 8.5                     | 6.1                       | TAP226K035CCSY-LF | 110-0566   |
| 47           | 16             | 9                       | 10                        | TAP476K035CCSY-LF | 110-0568   |

| 35 Volt d.c. | Order Code | 1+       | 25+    | 100+   | 250+   | +  |
|--------------|------------|----------|--------|--------|--------|----|
| 1            | 110-0562   | 74.00    | 68.00  | 60.00  | 52.00  | -- |
| 2.2          | 110-0563   | 87.00    | 80.00  | 70.00  | 65.00  | -- |
| 4.7          | 110-0564   | 129.00   | 118.00 | 104.00 | 91.00  | -- |
| 10           | 110-0565   | 169.00   | 154.00 | 135.00 | 118.00 | -- |
| 22           | 110-0566   | 492.00   | 450.00 | 393.00 | 344.00 | -- |
| 47           | 110-0568   | 1,083.00 | 990.00 | 866.00 | 758.00 | -- |

| 35 Volt d.c. | Tolerance ±20% | DC Leakage Current (μA) | Impedance (Ω) 100kHz 20°C | Mftrs. List No.   | Order Code |
|--------------|----------------|-------------------------|---------------------------|-------------------|------------|
| 0.1          | 4.8            | 4.5                     | 0.5                       | TAP104M035CCSY-LF | 110-0569   |
| 0.22         | 8.5            | 4.5                     | 0.5                       | TAP224M035CCSY-LF | 110-0570   |
| 0.47         | 8.5            | 4.5                     | 0.5                       | TAP474M035CCSY-LF | 110-0571   |
| 1            | 8.5            | 4.5                     | 0.5                       | TAP105M035CCSY-LF | 110-0572   |
| 2.2          | 9              | 4.5                     | 0.5                       | TAP225M035CCSY-LF | 110-0573   |
| 10           | 11.5           | 6                       | 2.8                       | TAP106M035CCSY-LF | 110-0574   |
| 15           | 12             | 7                       | 4.2                       | TAP156M035CCSY-LF | 110-0575   |
| 22           | 14             | 8.5                     | 6.1                       | TAP226M035CCSY-LF | 110-0576   |
| 33           | 14.5           | 9                       | 9.2                       | TAP336M035CCSY-LF | 110-0577   |
| 47           | 16             | 9                       | 10                        | TAP476M035CCSY-LF | 110-0578   |

| 35 Volt d.c. | Order Code | 1+       | 25+    | 100+   | 250+   | +  |
|--------------|------------|----------|--------|--------|--------|----|
| 0.1          | 110-0569   | 71.00    | 65.00  | 57.00  | 50.00  | -- |
| 0.22         | 110-0570   | 71.00    | 65.00  | 57.00  | 50.00  | -- |
| 0.47         | 110-0571   | 71.00    | 65.00  | 57.00  | 50.00  | -- |
| 1            | 110-0572   | 71.00    | 65.00  | 57.00  | 53.00  | -- |
| 2.2          | 110-0573   | 91.00    | 83.00  | 73.00  | 64.00  | -- |
| 10           | 110-0574   | 154.00   | 141.00 | 123.00 | 108.00 | -- |
| 15           | 110-0575   | 308.00   | 282.00 | 246.00 | 216.00 | -- |
| 22           | 110-0576   | 468.00   | 428.00 | 375.00 | 328.00 | -- |
| 33           | 110-0577   | 769.00   | 708.00 | 619.00 | 541.00 | -- |
| 47           | 110-0578   | 1,031.00 | 944.00 | 825.00 | 722.00 | -- |

| 50 Volt d.c. | Tolerance ±20% | DC Leakage Current (μA) | Impedance (Ω) 100kHz 20°C | Mftrs. List No.   | Order Code |
|--------------|----------------|-------------------------|---------------------------|-------------------|------------|
| 0.1          | 8.5            | 4.5                     | 0.5                       | TAP104M050CCSY-LF | 110-0581   |
| 1            | 10             | 5                       | 0.5                       | TAP105M050CCSY-LF | 110-0582   |
| 2.2          | 10.5           | 5.5                     | 0.8                       | TAP225M050CCSY-LF | 110-0583   |
| 3.3          | 11.5           | 6                       | 1.3                       | TAP335M050CCSY-LF | 110-0584   |
| 4.7          | 11.5           | 6.5                     | 1.8                       | TAP475M050CCSY-LF | 110-0585   |
| 10           | 13             | 8                       | 4                         | TAP106M050CCSY-LF | 110-0586   |
| 22           | 14             | 9                       | 8.8                       | TAP226M050CCSY-LF | 110-0587   |

| 50 Volt d.c. | Order Code | 1+     | 25+    | 100+   | 250+   | +  |
|--------------|------------|--------|--------|--------|--------|----|
| 0.1          | 110-0581   | 106.00 | 97.00  | 85.00  | 75.00  | -- |
| 1            | 110-0582   | 139.00 | 127.00 | 111.00 | 103.00 | -- |
| 2.2          | 110-0583   | 185.00 | 169.00 | 148.00 | 129.00 | -- |
| 3.3          | 110-0584   | 231.00 | 211.00 | 185.00 | 162.00 | -- |
| 4.7          | 110-0585   | 250.00 | 228.00 | 200.00 | 186.00 | -- |
| 10           | 110-0586   | 481.00 | 440.00 | 384.00 | 337.00 | -- |
| 22           | 110-0587   | 749.00 | 685.00 | 599.00 | 524.00 | -- |

CTS13 Series



- Solid tantalum capacitors in hermetically sealed cases ● Low leakage current
- High operational stability

| μF                   | Operating temperature -55°C to +55°C |     |          | Mftrs. List No.  | Order Code |
|----------------------|--------------------------------------|-----|----------|------------------|------------|
|                      | L                                    | Dia | Lead Dia |                  |            |
| <b>6.3 Volt d.c.</b> |                                      |     |          |                  |            |
| 47                   | 15                                   | 5.1 | 0.5      | CTS13476X96R3B2P | 118-7277   |
| <b>10 Volt d.c.</b>  |                                      |     |          |                  |            |
| 4.7                  | 10.2                                 | 3.8 | 0.5      | CTS13475X9010A2P | 118-7278   |
| 33                   | 15                                   | 5.1 | 0.5      | CTS13336X9010B2P | 118-7279   |
| 100                  | 20.5                                 | 7.7 | 0.6      | CTS13107X9010C   | 118-7280   |
| 220                  | 24                                   | 9.3 | 0.6      | CTS13227X9010D   | 118-7281   |
| <b>16 Volt d.c.</b>  |                                      |     |          |                  |            |
| 3.3                  | 10.2                                 | 3.8 | 0.5      | CTS13335X9016A   | 118-7282   |
| 22                   | 15                                   | 5.1 | 0.5      | CTS13226X9016B   | 118-7285   |
| 68                   | 20.5                                 | 7.7 | 0.6      | CTS13686X9016C   | 118-7286   |
| <b>20 Volt d.c.</b>  |                                      |     |          |                  |            |
| 2.2                  | 10.2                                 | 3.8 | 0.5      | CTS13225X9020A   | 118-7287   |
| 15                   | 15                                   | 5.1 | 0.5      | CTS13156X9020B   | 118-7288   |
| 47                   | 20.5                                 | 7.7 | 0.6      | CTS13476X9020C   | 118-7289   |
| 100                  | 24                                   | 9.3 | 0.6      | CTS13107X9020D   | 118-7290   |
| <b>40 Volt d.c.</b>  |                                      |     |          |                  |            |
| 0.1                  | 10.2                                 | 3.8 | 0.5      | CTS13104X9040A   | 118-7291   |
| 1                    | 10.2                                 | 3.8 | 0.5      | CTS13105X9040A   | 118-7292   |
| 2.2                  | 15                                   | 5.1 | 0.5      | CTS13225X9040B   | 118-7294   |
| 3.3                  | 15                                   | 5.1 | 0.5      | CTS13335X9040B   | 118-7295   |
| 4.7                  | 15                                   | 5.1 | 0.5      | CTS13475X9040B   | 118-7297   |
| 6.8                  | 15                                   | 5.1 | 0.5      | CTS13685X9040B   | 118-7298   |
| 10                   | 20.5                                 | 7.7 | 0.6      | CTS13106X9040C   | 118-7299   |
| 22                   | 20.5                                 | 7.7 | 0.6      | CTS13226X9040C   | 118-7300   |
| 47                   | 24                                   | 9.3 | 0.6      | CTS13476X9040D   | 118-7301   |

| μF                   | Order Code | 1+       | 25+    | 50+    | 100+   | +  |
|----------------------|------------|----------|--------|--------|--------|----|
| <b>6.3 Volt d.c.</b> |            |          |        |        |        |    |
| 47                   | 118-7277   | 173.00   | 129.00 | 103.00 | 73.00  | -- |
| <b>10 Volt d.c.</b>  |            |          |        |        |        |    |
| 4.7                  | 118-7278   | 116.00   | 87.00  | 70.00  | 50.00  | -- |
| 33                   | 118-7279   | 96.00    | 91.00  | 86.00  | 82.00  | -- |
| 100                  | 118-7280   | 508.00   | 381.00 | 305.00 | 216.00 | -- |
| 220                  | 118-7281   | 1,086.00 | 816.00 | 652.00 | 461.00 | -- |
| <b>16 Volt d.c.</b>  |            |          |        |        |        |    |
| 3.3                  | 118-7282   | 116.00   | 87.00  | 70.00  | 50.00  | -- |
| 22                   | 118-7285   | 173.00   | 129.00 | 103.00 | 73.00  | -- |
| 68                   | 118-7286   | 504.00   | 378.00 | 302.00 | 214.00 | -- |
| <b>20 Volt d.c.</b>  |            |          |        |        |        |    |
| 2.2                  | 118-7287   | 116.00   | 87.00  | 70.00  | 50.00  | -- |
| 15                   | 118-7288   | 166.00   | 124.00 | 100.00 | 71.00  | -- |
| 47                   | 118-7289   | 508.00   | 381.00 | 305.00 | 216.00 | -- |
| 100                  | 118-7290   | 802.00   | 742.00 | 651.00 | 583.00 | -- |
| <b>40 Volt d.c.</b>  |            |          |        |        |        |    |
| 0.1                  | 118-7291   | 116.00   | 87.00  | 70.00  | 50.00  | -- |
| 1                    | 118-7292   | 116.00   | 87.00  | 70.00  | 50.00  | -- |
| 2.2                  | 118-7294   | 16.00    | 13.00  | 10.00  | 7.00   | -- |
| 3.3                  | 118-7295   | 89.00    | 84.00  | 81.00  | 76.00  | -- |
| 4.7                  | 118-7297   | 65.00    | --     | --     | --     | -- |
| 6.8                  | 118-7298   | 65.00    | --     | --     | --     | -- |
| 10                   | 118-7299   | 488.00   | 367.00 | 293.00 | 210.00 | -- |
| 22                   | 118-7300   | 692.00   | 520.00 | 416.00 | 294.00 | -- |
| 47                   | 118-7301   | 1,044.00 | 784.00 | 627.00 | 447.00 | -- |

**Solid Aluminium**

2222 128 Series



- High performance
- Extremely long operating life
- Extended operating temperature

Lead pitch = 5.2  
Lead dia = 0.6

Operating temperature -55°C to +125°C (6.3 to 25V) DC leakage current 0.025CV or 2μA whichever is >  
-55°C to +85°C (40V) Operating life @ 40°C >300,000 hrs

| Volt d.c. | μF   | ESR (Ω) @ 100Hz 20°C | Impedance (Ω) @ 100kHz 20°C | Dimensions |   |     | Mftrs. List No. | Order Code |
|-----------|------|----------------------|-----------------------------|------------|---|-----|-----------------|------------|
|           |      |                      |                             | H          | W | D   |                 |            |
| 6.3       | 10   | 20                   | 3                           | 9.5        | 7 | 3.5 | 2222 128 53109  | 116-6612   |
| 6.3       | 22   | 9                    | 1                           | 9.5        | 7 | 4   | 2222 128 53229  | 116-6613   |
| 6.3       | 47   | 4.8                  | 0.5                         | 9.5        | 8 | 5   | 2222 128 53479  | 116-6614   |
| 6.3       | 68   | 3                    | 0.5                         | 9.5        | 8 | 6   | 2222 128 53689  | 116-6615   |
| 10        | 4.7  | 43                   | 3                           | 9.5        | 7 | 3.5 | 2222 128 54478  | 116-6616   |
| 10        | 22   | 9                    | 1.7                         | 9.5        | 7 | 5   | 2222 128 54229  | 116-6618   |
| 10        | 33   | 6.1                  | 0.5                         | 9.5        | 8 | 5   | 2222 128 54339  | 116-6619   |
| 10        | 47   | 4.3                  | 0.5                         | 9.5        | 8 | 6   | 2222 128 54479  | 116-6620   |
| 16        | 2.2  | 91                   | 5                           | 9.5        | 7 | 3.5 | 2222 128 55228  | 116-6622   |
| 16        | 4.7  | 43                   | 2                           | 9.5        | 7 | 4   | 2222 128 55478  | 116-6623   |
| 16        | 6.8  | 30                   | 1.5                         | 9.5        | 7 | 4   | 2222 128 55688  | 116-6624   |
| 16        | 10   | 20                   | 1                           | 9.5        | 7 | 5   | 2222 128 55109  | 116-6625   |
| 16        | 15   | 14                   | 0.7                         | 9.5        | 8 | 5   | 2222 128 55159  | 116-6626   |
| 16        | 22   | 9                    | 0.7                         | 9.5        | 8 | 6   | 2222 128 55229  | 116-6627   |
| 25        | 1    | 200                  | 15                          | 9.5        | 7 | 3.5 | 2222 128 56108  | 116-6628   |
| 25        | 2.2  | 91                   | 10                          | 9.5        | 7 | 4   | 2222 128 56228  | 116-6629   |
| 25        | 4.7  | 43                   | 5                           | 9.5        | 8 | 5   | 2222 128 56478  | 116-6630   |
| 25        | 10   | 20                   | 2                           | 9.5        | 8 | 6   | 2222 128 56109  | 116-6632   |
| 40        | 0.1  | 1990                 | 45                          | 9.5        | 7 | 3   | 2222 128 37107  | 116-6595   |
| 40        | 0.47 | 430                  | 15                          | 9.5        | 7 | 5   | 2222 128 37477  | 116-6596   |
| 40        | 1    | 200                  | 10                          | 9.5        | 8 | 6   | 2222 128 57108  | 116-6634   |

| Volt d.c. | μF   | Order Code | Price Each |       |       |       |
|-----------|------|------------|------------|-------|-------|-------|
|           |      |            | 5+         | 100+  | 500+  | 1K+   |
| 6.3       | 10   | 116-6612   | 69.00      | 55.00 | 44.00 | 33.00 |
| 6.3       | 22   | 116-6613   | 70.00      | 56.00 | 45.00 | 33.00 |
| 6.3       | 47   | 116-6614   | 77.00      | 62.00 | 49.00 | 37.00 |
| 6.3       | 68   | 116-6615   | 84.00      | 67.00 | 54.00 | 40.00 |
| 10        | 4.7  | 116-6616   | 69.00      | 55.00 | 44.00 | 33.00 |
| 10        | 22   | 116-6618   | 71.00      | 57.00 | 45.00 | 34.00 |
| 10        | 33   | 116-6619   | 75.00      | 60.00 | 48.00 | 36.00 |
| 10        | 47   | 116-6620   | 87.00      | 69.00 | 55.00 | 42.00 |
| 16        | 2.2  | 116-6622   | 68.00      | 55.00 | 44.00 | 33.00 |
| 16        | 4.7  | 116-6623   | 71.00      | 56.00 | 45.00 | 34.00 |
| 16        | 6.8  | 116-6624   | 70.00      | 56.00 | 45.00 | 34.00 |
| 16        | 10   | 116-6625   | 71.00      | 56.00 | 45.00 | 34.00 |
| 16        | 15   | 116-6626   | 75.00      | 60.00 | 48.00 | 36.00 |
| 16        | 22   | 116-6627   | 82.00      | 66.00 | 53.00 | 40.00 |
| 25        | 1    | 116-6628   | 68.00      | 55.00 | 44.00 | 33.00 |
| 25        | 2.2  | 116-6629   | 70.00      | 56.00 | 45.00 | 33.00 |
| 25        | 4.7  | 116-6630   | 73.00      | 58.00 | 46.00 | 35.00 |
| 25        | 10   | 116-6632   | 73.00      | 59.00 | 47.00 | 35.00 |
| 40        | 0.1  | 116-6595   | 68.00      | 54.00 | 43.00 | 32.00 |
| 40        | 0.47 | 116-6596   | 72.00      | 58.00 | 46.00 | 35.00 |
| 40        | 1    | 116-6634   | 78.00      | 62.00 | 50.00 | 37.00 |