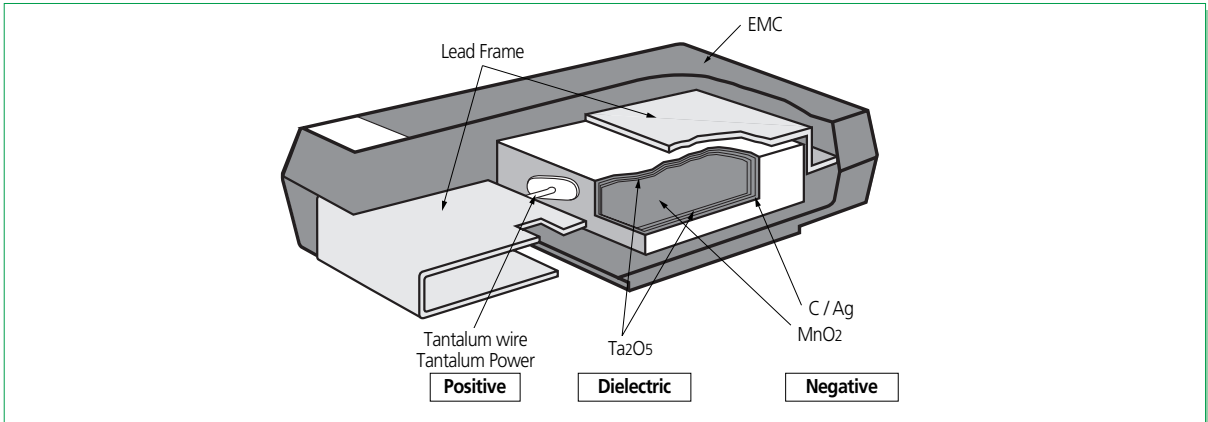
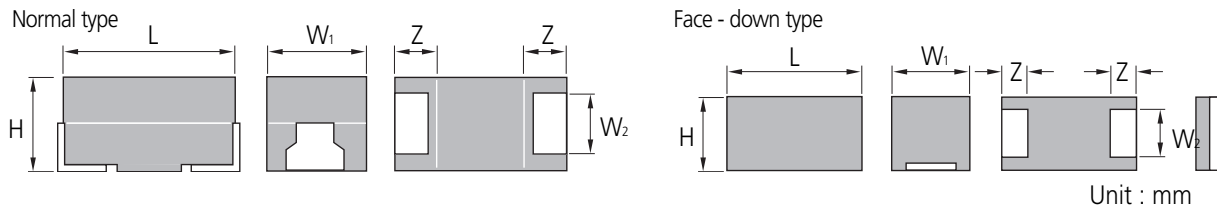


Feature



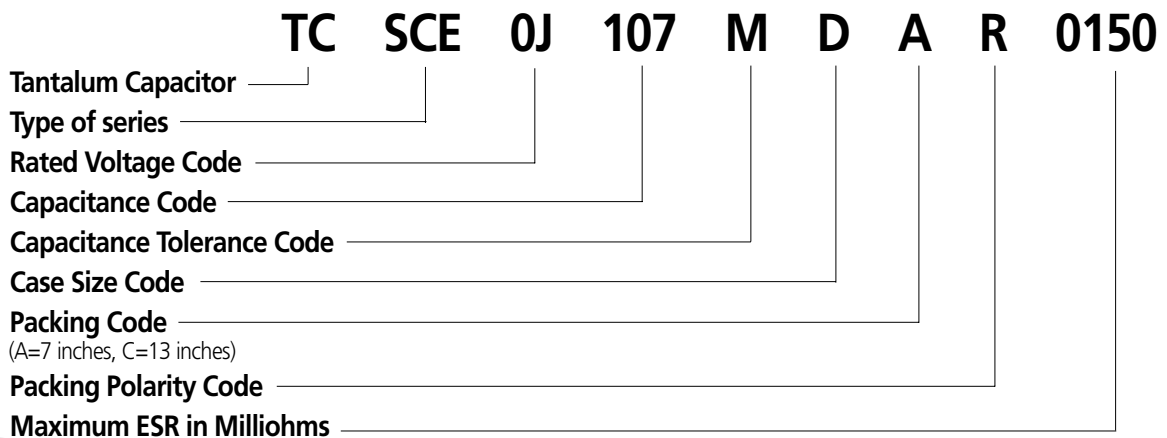
Configuration And Dimension



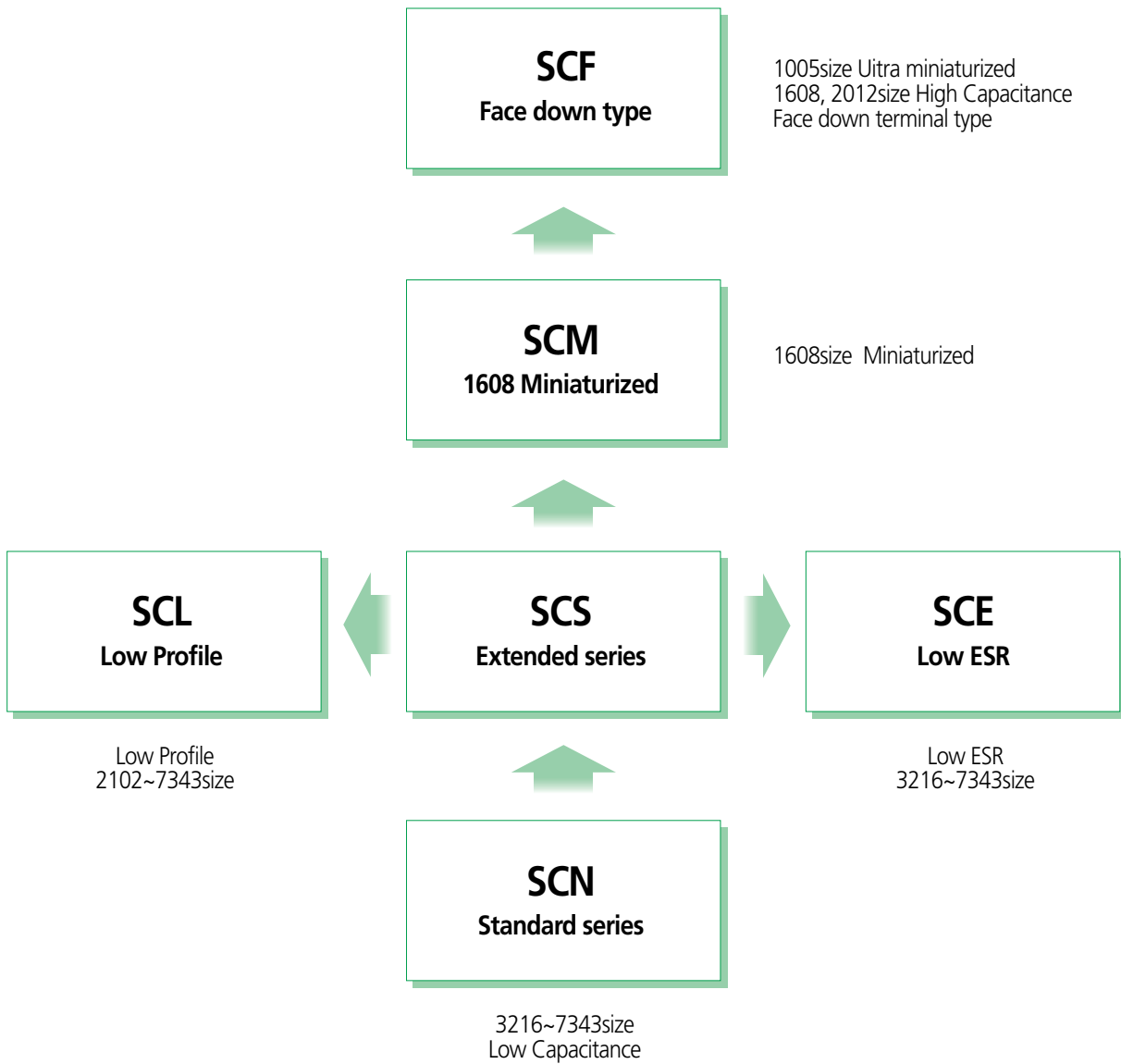
| Case Code | EIA Code | L | W ₁ | W ₂ | H | Z |
|-----------|----------|------------------|-------------------|----------------|-------------------|----------|
| U* | 1005 | 1.0±0.2 | 0.5±0.2 | 0.4±0.05 | 0.60 max | 0.25±0.1 |
| I* | 1005 | 1.0±0.2 | 0.5±0.2 | 0.4±0.05 | 0.55 max | 0.25±0.1 |
| J | 1608 -10 | 1.6+0.15 -0.1 | 0.85+0.15 -0.1 | 0.6±0.1 | 0.85+0.15 -0.1 | 0.4±0.1 |
| K* | 1608 -9 | 1.6±0.1 | 0.85±0.1 | 0.6±0.1 | 0.8±0.1 | 0.4±0.1 |
| K | 1608 -9 | 1.6+0.15 -0.1 | 0.85+0.15 -0.1 | 0.6±0.1 | 0.90max | 0.4±0.1 |
| R | 2012L | 2.0±0.2 | 1.25±0.2 | 0.9±0.1 | 0.95 max | 0.5±0.2 |
| P | 2012 | 2.0±0.2 | 1.25±0.2 | 0.9±0.1 | 1.1±0.1 | 0.45±0.1 |
| P* | 2012 | 2.0±0.2 | 1.25±0.2 | 0.9±0.1 | 1.2 max | 0.5±0.2 |
| S | 3216L | 3.2+0.3 | 1.6±0.2 | 1.2±0.1 | 1.1±0.1 | 0.8±0.3 |
| A | 3216 | 3.2±0.2 | 1.6±0.2 | 1.2±0.1 | 1.6±0.2 | 0.8±0.3 |
| T | 3528L | 3.5±0.2 | 2.8±0.2 | 2.2±0.1 | 1.2 max | 0.8±0.3 |
| B | 3528 | 3.5±0.2 | 2.8±0.2 | 2.2±0.1 | 1.9±0.2 | 0.8±0.3 |
| C | 6032 | 6.0±0.3 | 3.2±0.3 | 2.2±0.1 | 2.5±0.3 | 1.3±0.3 |
| D | 7343 | 7.3±0.3 | 4.3±0.3 | 2.4±0.1 | 2.8±0.3 | 1.3±0.3 |

Case Code *(Face-down type)

Part Number Code



Manganese Dioxide Type Series System Diagram



Precautions in using
Tantalum Capacitors

4 Characteristics
Explanation

SCN Series

SCS Series

SCS-P Series

SCM Series

SCF Series

SCE Series

SCL Series

PCS Series

PCL Series

Marking
Specification

Taping
Specification



Feature

Miniaturized tantalum chip capacitors with extended capacitance.
(Reduced size 1/2 to 1/3 in comparison with SCN.)

- Molded case available in four case codes.
- New low profile size.
- Compatible with automatic pick and place equipment.
- Meets or exceeds EIA standard 535BAAC.
- Environment-Friendly(Pb-free) tantalum capacitor.

Specifications

| | | | | | | | | |
|------------------------------------|---|--------------------------------------|-----|------|------|------|------|------|
| Capacitance | Range | 0.47 μ F to 680 μ F | | | | | | |
| | Tolerance | $\pm 20\%$ (M), $\pm 10\%$ (K) | | | | | | |
| Dissipation Factor (Tan δ) | | Refer to Specification | | | | | | |
| Leakage Current | | Refer to Specification | | | | | | |
| Rated Voltage(VR) | T \leq 85 $^{\circ}$ C | 2.5 | 6.3 | 10.0 | 16.0 | 20.0 | 25.0 | 35.0 |
| Category Voltage(V) | 85 $^{\circ}$ C < T \leq 125 $^{\circ}$ C | 1.6 | 4.0 | 6.3 | 10.0 | 13.0 | 16.0 | 22.0 |
| Surge Voltage(V) | T \leq 85 $^{\circ}$ C | 3.1 | 8.0 | 13.0 | 20.0 | 25.0 | 32.0 | 44.0 |
| | 85 $^{\circ}$ C < T \leq 125 $^{\circ}$ C | 2 | 5.0 | 8.0 | 13.0 | 16.0 | 20.0 | 28.0 |
| Operating Temperature | | -55 $^{\circ}$ C to 125 $^{\circ}$ C | | | | | | |

Standard Value and Case Size

| Cap.(μ F) | R . V | 2.5V(0E) | 4V(0G) | 6.3V(0J) | 10V(1A) | 16V(1C) | 20V(1D) | 25V(1E) | 35V(1V) |
|----------------|-------|----------|------------|----------|------------|---------|---------|---------|---------|
| 0.15 | 154 | | | | | | | | |
| 0.22 | 224 | | | | | | | | |
| 0.33 | 334 | | | | | | | | |
| 0.47 | 474 | | | | | | | | A |
| 0.68 | 684 | | | | | | | A | A |
| 1.0 | 105 | | | | | | A | A | A |
| 1.5 | 155 | | | | | A | A | A | A, B |
| 2.2 | 225 | | | | A | A | A | A, B | B |
| 3.3 | 335 | | | A | A | A | A, B | A, B | B |
| 4.7 | 475 | | A | A | A | A, B | A, B | B | C |
| 6.8 | 685 | | A | A | A, B | A, B | B | B, C | C |
| 10 | 106 | | A | A, B | A, B | A, B | B, C | B, C | C, D |
| 15 | 156 | | A, B | A, B | A, B | B, C | C | C, D | C, D |
| 22 | 226 | | A, B | A, B | A, B, C | B, C | B, C, D | C, D | D |
| 33 | 336 | | A, B | A, B, C | A, B, C | B, C, D | C, D | D | D |
| 47 | 476 | | A, B, C | A, B, C | A, B, C, D | C, D | D | | |
| 68 | 686 | | B, C | B, C, D | C, D | C, D | D | | |
| 100 | 107 | | A, B, C, D | B, C, D | C, D | D | D | | |
| 150 | 157 | | C, D | C, D | D | | | | |
| 220 | 227 | B | B, C, D | C, D | D | | | | |
| 330 | 337 | | D | D | | | | | |
| 470 | 477 | | D | D | | | | | |
| 680 | 687 | | | | | | | | |

Precautions in using
Tantalum Capacitors

4 Characteristics
Explanation

SCN Series

SCS Series

SCS-P Series

SCM Series

SCF Series

SCE Series

SCL Series

PCS Series

PCL Series

Marking
Specification

Taping
Specification



Ratings & Part Number Reference

| Part Number | Case Size | Capacitance (μF) | DC Leakage (μA) @ +25 °C Max. | DF (%) @ +25 °C 120Hz Max. | ESR (Ω) @ +25 °C 100KHz Max. |
|--|-----------|------------------|-------------------------------|----------------------------|------------------------------|
| 2.5 volt Rating @ +85 °C (1.6 volt Rating @ +125 °C) | | | | | |
| TCSCS0E227*BAR | B | 220 | 5.5 | 18 | 1.2 |
| 4 volt Rating @ +85 °C (2.5 volt Rating @ +125 °C) | | | | | |
| TCSCS0G475*AAR | A | 4.7 | 0.5 | 8 | 8.0 |
| TCSCS0G685*AAR | A | 6.8 | 0.5 | 8 | 6.0 |
| TCSCS0G106*AAR | A | 10 | 0.5 | 8 | 6.0 |
| TCSCS0G156*AAR | A | 15 | 0.6 | 8 | 4.0 |
| TCSCS0G156*BAR | B | 15 | 0.6 | 8 | 3.5 |
| TCSCS0G226*AAR | A | 22 | 0.9 | 8 | 4.0 |
| TCSCS0G226*BAR | B | 22 | 0.9 | 8 | 3.5 |
| TCSCS0G336*AAR | A | 33 | 1.3 | 8 | 4.0 |
| TCSCS0G336*BAR | B | 33 | 1.3 | 8 | 3.5 |
| TCSCS0G476*AAR | A | 47 | 1.9 | 8 | 2.0 |
| TCSCS0G476*BAR | B | 47 | 1.9 | 8 | 3.5 |
| TCSCS0G476*CAR | C | 47 | 1.9 | 8 | 1.8 |
| TCSCS0G686*BAR | B | 68 | 2.7 | 8 | 1.8 |
| TCSCS0G686*CAR | C | 68 | 2.7 | 8 | 1.6 |
| TCSCS0G107*AAR | A | 100 | 4.0 | 30 | 2.0 |
| TCSCS0G107*BAR | B | 100 | 4.0 | 8 | 0.8 |
| TCSCS0G107*CAR | C | 100 | 4.0 | 8 | 1.6 |
| TCSCS0G107*DAR | D | 100 | 4.0 | 8 | 0.8 |
| TCSCS0G157*CAR | C | 150 | 6.0 | 8 | 1.2 |
| TCSCS0G157*DAR | D | 150 | 6.0 | 8 | 0.8 |
| TCSCS0G227MBAR | B | 220 | 8.8 | 18 | 0.5 |
| TCSCS0G227*CAR | C | 220 | 8.8 | 8 | 0.6 |
| TCSCS0G227*DAR | D | 220 | 8.8 | 8 | 0.9 |
| TCSCS0G337*DAR | D | 330 | 13.2 | 8 | 0.7 |
| TCSCS0G477*DAR | D | 470 | 18.8 | 10 | 0.6 |
| 6.3 volt Rating @ +85 °C (4 volt Rating @ +125 °C) | | | | | |
| TCSCS0J335*AAR | A | 3.3 | 0.5 | 8 | 8.0 |
| TCSCS0J475*AAR | A | 4.7 | 0.5 | 8 | 6.0 |
| TCSCS0J685*AAR | A | 6.8 | 0.5 | 8 | 6.0 |
| TCSCS0J106*AAR | A | 10 | 0.6 | 8 | 4.0 |
| TCSCS0J106*BAR | B | 10 | 0.6 | 8 | 3.5 |
| TCSCS0J156*AAR | A | 15 | 0.9 | 8 | 4.0 |
| TCSCS0J156*BAR | B | 15 | 0.9 | 8 | 3.5 |
| TCSCS0J226*AAR | A | 22 | 1.4 | 8 | 2.0 |
| TCSCS0J226*BAR | B | 22 | 1.4 | 8 | 3.5 |
| TCSCS0J336*AAR | A | 33 | 2 | 6 | 2.0 |
| TCSCS0J336*BAR | B | 33 | 2 | 8 | 3.0 |
| TCSCS0J336*CAR | C | 33 | 2 | 8 | 1.8 |
| TCSCS0J476*AAR | A | 47 | 3 | 12 | 2.0 |
| TCSCS0J476*BAR | B | 47 | 3 | 8 | 1.3 |
| TCSCS0J476*CAR | C | 47 | 3 | 8 | 1.6 |
| TCSCS0J686*BAR | B | 68 | 4.3 | 8 | 3.5 |
| TCSCS0J686*CAR | C | 68 | 4.3 | 8 | 1.2 |
| TCSCS0J686*DAR | D | 68 | 4.3 | 8 | 0.8 |
| TCSCS0J107MBAR | B | 100 | 6.3 | 10 | 0.8 |
| TCSCS0J107*CAR | C | 100 | 6.3 | 8 | 0.8 |
| TCSCS0J107*DAR | D | 100 | 6.3 | 8 | 0.8 |
| TCSCS0J157*CAR | C | 150 | 9.5 | 8 | 1.3 |
| TCSCS0J157*DAR | D | 150 | 9.5 | 8 | 0.9 |
| TCSCS0J227*CAR | C | 220 | 13.9 | 8 | 0.6 |
| TCSCS0J227*DAR | D | 220 | 13.9 | 8 | 0.7 |
| TCSCS0J337*DAR | D | 330 | 20.8 | 8 | 0.5 |
| TCSCS0J477*DAR | D | 470 | 29.6 | 10 | 0.3 |

| Part Number | Case Size | Capacitance (μF) | DC Leakage (μA) @+25 °C Max. | DF (%) @+25 °C 120Hz Max. | ESR (Ω) @+25 °C 100KHz Max. |
|---|-----------|------------------|------------------------------|---------------------------|-----------------------------|
| 10 volt Rating @+85 °C (6.3 volt Rating @+125 °C) | | | | | |
| TCSCS1A225*AAR | A | 2.2 | 0.5 | 8 | 8.0 |
| TCSCS1A335*AAR | A | 3.3 | 0.5 | 8 | 6.0 |
| TCSCS1A475*AAR | A | 4.7 | 0.5 | 8 | 6.0 |
| TCSCS1A685*AAR | A | 6.8 | 0.7 | 8 | 6.0 |
| TCSCS1A685*BAR | B | 6.8 | 0.7 | 8 | 3.5 |
| TCSCS1A106*AAR | A | 10 | 1 | 8 | 2.0 |
| TCSCS1A106*BAR | B | 10 | 1 | 8 | 3.5 |
| TCSCS1A156*AAR | A | 15 | 1.5 | 8 | 4.0 |
| TCSCS1A156*BAR | B | 15 | 1.5 | 8 | 3.5 |
| TCSCS1A226*AAR | A | 22 | 2.2 | 8 | 2.0 |
| TCSCS1A226*BAR | B | 22 | 2.2 | 8 | 3.0 |
| TCSCS1A226*CAR | C | 22 | 2.2 | 8 | 1.8 |
| TCSCS1A336*AAR | A | 33 | 3.3 | 12 | 2.0 |
| TCSCS1A336*BAR | B | 33 | 3.3 | 8 | 1.8 |
| TCSCS1A336*CAR | C | 33 | 3.3 | 8 | 1.6 |
| TCSCS1A476MAAR | A | 47 | 9.4 | 20 | 3.0 |
| TCSCS1A476*BAR | B | 47 | 4.7 | 8 | 1.6 |
| TCSCS1A476*CAR | C | 47 | 4.7 | 8 | 1.2 |
| TCSCS1A476*DAR | D | 47 | 4.7 | 8 | 0.8 |
| TCSCS1A686*CAR | C | 68 | 6.8 | 8 | 0.9 |
| TCSCS1A686*DAR | D | 68 | 6.8 | 8 | 0.8 |
| TCSCS1A107*CAR | C | 100 | 10 | 8 | 1.2 |
| TCSCS1A107*DAR | D | 100 | 10 | 8 | 0.7 |
| TCSCS1A157*DAR | D | 150 | 15 | 8 | 0.8 |
| TCSCS1A227*DAR | D | 220 | 22 | 8 | 0.4 |
| 16 volt Rating @+85 °C (10 volt Rating @+125 °C) | | | | | |
| TCSCS1C155*AAR | A | 1.5 | 0.5 | 8 | 8.0 |
| TCSCS1C225*AAR | A | 2.2 | 0.5 | 8 | 6.0 |
| TCSCS1C335*AAR | A | 3.3 | 0.5 | 8 | 6.0 |
| TCSCS1C475*AAR | A | 4.7 | 0.7 | 8 | 4.0 |
| TCSCS1C475*BAR | B | 4.7 | 0.7 | 8 | 3.5 |
| TCSCS1C685*AAR | A | 6.8 | 1.0 | 8 | 3.5 |
| TCSCS1C685*BAR | B | 6.8 | 1.0 | 8 | 3.5 |
| TCSCS1C106*AAR | A | 10 | 1.6 | 8 | 3.0 |
| TCSCS1C106*BAR | B | 10 | 1.6 | 8 | 3.5 |
| TCSCS1C156*BAR | B | 15 | 2.4 | 8 | 3.0 |
| TCSCS1C156*CAR | C | 15 | 2.4 | 8 | 1.8 |
| TCSCS1C226*BAR | B | 22 | 3.5 | 8 | 2.3 |
| TCSCS1C226*CAR | C | 22 | 3.5 | 8 | 1.6 |
| TCSCS1C336*BAR | B | 33 | 5.3 | 8 | 1.4 |
| TCSCS1C336*CAR | C | 33 | 5.3 | 8 | 1.5 |
| TCSCS1C336*DAR | D | 33 | 5.3 | 8 | 0.8 |
| TCSCS1C476*CAR | C | 47 | 7.5 | 8 | 1.4 |
| TCSCS1C476*DAR | D | 47 | 7.5 | 8 | 0.8 |
| TCSCS1C686*CAR | C | 68 | 10.9 | 8 | 1.4 |
| TCSCS1C686*DAR | D | 68 | 10.9 | 8 | 0.8 |
| TCSCS1C107*DAR | D | 100 | 16 | 8 | 0.7 |

Precautions in using
Tantalum Capacitors

4 Characteristics
Explanation

SCN Series

SCS Series

SCS-P Series

SCM Series

SCF Series

SCE Series

SCL Series

PCS Series

PCL Series

Marking
Specification

Taping
Specification

| Part Number | Case Size | Capacitance (μ F) | DC Leakage (μ A) @ +25 °C Max. | DF (%) @ +25 °C 120Hz Max. | ESR (Ω) @ +25 °C 100KHz Max. |
|--|-----------|------------------------|-------------------------------------|----------------------------|---------------------------------------|
| 20 volt Rating @ +85 °C (13 volt Rating @ +125 °C) | | | | | |
| TCSCS1D105*AAR | A | 1.0 | 0.5 | 6 | 10.0 |
| TCSCS1D155*AAR | A | 1.5 | 0.5 | 8 | 8.0 |
| TCSCS1D225*AAR | A | 2.2 | 0.5 | 8 | 7.0 |
| TCSCS1D335*AAR | A | 3.3 | 0.7 | 8 | 4.0 |
| TCSCS1D335*BAR | B | 3.3 | 0.7 | 8 | 3.5 |
| TCSCS1D475*AAR | A | 4.7 | 1.0 | 8 | 3.5 |
| TCSCS1D475*BAR | B | 4.7 | 1.0 | 8 | 3.5 |
| TCSCS1D685*BAR | B | 6.8 | 1.4 | 8 | 3.5 |
| TCSCS1D106*BAR | B | 10 | 2.0 | 8 | 3.0 |
| TCSCS1D106*CAR | C | 10 | 2.0 | 8 | 1.8 |
| TCSCS1D156*CAR | C | 15 | 3.0 | 8 | 1.7 |
| TCSCS1D226*BAR | B | 22 | 4.4 | 6 | 1.8 |
| TCSCS1D226*CAR | C | 22 | 4.4 | 8 | 1.6 |
| TCSCS1D226*DAR | D | 22 | 4.4 | 8 | 0.8 |
| TCSCS1D336*CAR | C | 33 | 6.6 | 8 | 1.2 |
| TCSCS1D336*DAR | D | 33 | 6.6 | 8 | 0.8 |
| TCSCS1D476*DAR | D | 47 | 9.4 | 8 | 0.7 |
| TCSCS1D686*DAR | D | 68 | 13.6 | 8 | 0.7 |
| TCSCS1D107*DAR | D | 100 | 20.0 | 8 | 0.9 |
| 25 volt Rating @ +85 °C (16 volt Rating @ +125 °C) | | | | | |
| TCSCS1E684*AAR | A | 0.68 | 0.5 | 6 | 10.0 |
| TCSCS1E105*AAR | A | 1.0 | 0.5 | 6 | 8.0 |
| TCSCS1E155*AAR | A | 1.5 | 0.5 | 8 | 8.0 |
| TCSCS1E225*AAR | A | 2.2 | 0.6 | 8 | 6.0 |
| TCSCS1E225*BAR | B | 2.2 | 0.6 | 8 | 4.5 |
| TCSCS1E335*AAR | A | 3.3 | 0.8 | 6 | 3.7 |
| TCSCS1E335*BAR | B | 3.3 | 0.8 | 8 | 3.5 |
| TCSCS1E475*BAR | B | 4.7 | 1.2 | 8 | 3.0 |
| TCSCS1E685*BAR | B | 6.8 | 1.7 | 8 | 2.8 |
| TCSCS1E685*CAR | C | 6.8 | 1.7 | 8 | 1.9 |
| TCSCS1E106*BAR | B | 10 | 2.5 | 8 | 1.8 |
| TCSCS1E106*CAR | C | 10 | 2.5 | 8 | 1.5 |
| TCSCS1E156*CAR | C | 15 | 3.7 | 8 | 1.5 |
| TCSCS1E156*DAR | D | 15 | 3.7 | 8 | 1.0 |
| TCSCS1E226*CAR | C | 22 | 5.5 | 8 | 1.2 |
| TCSCS1E226*DAR | D | 22 | 5.5 | 8 | 0.8 |
| TCSCS1E336*DAR | D | 33 | 8.2 | 8 | 0.7 |
| 35 volt Rating @ +85 °C (22 volt Rating @ +125 °C) | | | | | |
| TCSCS1V474*AAR | A | 0.47 | 0.5 | 6 | 12.0 |
| TCSCS1V684*AAR | A | 0.68 | 0.5 | 6 | 10.0 |
| TCSCS1V105*AAR | A | 1.0 | 0.5 | 6 | 7.5 |
| TCSCS1V155*AAR | A | 1.5 | 0.5 | 8 | 7.5 |
| TCSCS1V155*BAR | B | 1.5 | 0.5 | 8 | 5.0 |
| TCSCS1V225*BAR | B | 2.2 | 0.7 | 8 | 4.2 |
| TCSCS1V335*BAR | B | 3.3 | 1.2 | 8 | 3.5 |
| TCSCS1V475*CAR | C | 4.7 | 1.6 | 8 | 2.5 |
| TCSCS1V685*CAR | C | 6.8 | 2.3 | 8 | 2.0 |
| TCSCS1V106*CAR | C | 10 | 3.5 | 8 | 1.6 |
| TCSCS1V106*DAR | D | 10 | 3.5 | 8 | 1.0 |
| TCSCS1V156*CAR | C | 15 | 5.3 | 8 | 1.4 |
| TCSCS1V156*DAR | D | 15 | 5.2 | 8 | 0.8 |
| TCSCS1V226*DAR | D | 22 | 7.7 | 8 | 0.9 |
| TCSCS1V336MDAR | D | 33 | 11.5 | 6 | 0.9 |

All technical data relates to an ambient temperature of +25 °C.
 Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.0 volts.
 DCL is measured at rated voltage after 5 minutes.
 * Insert K for \pm 10% tolerance and M for \pm 20%.



Feature

- Reduced to about 1/3 the cubic volume of the SCN.
- New low profile case size.
(0805 size tantalum chip capacitors)
- Compatible with automatic pick and place equipment.
- Meets or exceeds EIA standard 535BAAC.

Specifications

| | | | | | | | | |
|------------------------------------|--|---|-----|------|------|------|------|------|
| Capacitance | Range | 0.22 μ F to 22 μ F | | | | | | |
| | Tolerance | $\pm 20\%$ (M), $\pm 10\%$ (K) | | | | | | |
| Dissipation Factor (Tan δ) | | Refer to Specification | | | | | | |
| Leakage Current | | between 0.01CV and 0.5 μ A, whichever is larger | | | | | | |
| Rated Voltage(VR) | T $\leq 85^{\circ}$ C | 4.0 | 6.3 | 10.0 | 16.0 | 20.0 | 25.0 | 35.0 |
| Category Voltage (V) | 85 $^{\circ}$ C < T $\leq 125^{\circ}$ C | 2.5 | 4.0 | 6.3 | 10.0 | 13.0 | 16.0 | 22.0 |
| Surge Voltage (V) | T $\leq 85^{\circ}$ C | 5.2 | 8.0 | 13.0 | 20.0 | 25.0 | 32.0 | 44.0 |
| | 85 $^{\circ}$ C < T $\leq 125^{\circ}$ C | 3.2 | 5.0 | 8.0 | 13.0 | 16.0 | 20.0 | 28.0 |
| Operating Temperature | | -55 $^{\circ}$ C to 125 $^{\circ}$ C | | | | | | |

Standard value and case size

| Cap.(μ F) | R . V | 4V(0G) | 6.3V(0J) | 10V(1A) | 16V(1C) | 20V(1D) |
|----------------|-------|--------|----------|---------|---------|---------|
| 0.22 | 224 | P | P | P | P | |
| 0.33 | 334 | | | | | |
| 0.47 | 474 | P | P | P | P | P |
| 0.68 | 684 | P | P | P | P | P |
| 1.0 | 105 | P | P | P | P | |
| 1.5 | 155 | | | | | |
| 2.2 | 225 | P | P | P | P | |
| 3.3 | 335 | P | P | P | | |
| 4.7 | 475 | P | P | P | | |
| 6.8 | 685 | P | P | | | |
| 10 | 106 | P | P | P | | |
| 15 | 156 | | | | | |
| 22 | 226 | P | P | | | |
| 33 | 336 | | P | | | |
| 47 | 476 | | | | | |
| 100 | 107 | | | | | |

Precautions in using Tantalum Capacitors

4 Characteristics Explanation

SCN Series

SCS Series

SCS-P Series

SCM Series

SCF Series

SCE Series

SCL Series

PCS Series

PCL Series

Marking Specification

Taping Specification

Ratings & Part Number Reference

| Part Number | Case Size | Capacitance (μ F) | DC Leakage (μ A) @ +25 °C Max. | DF (%) @ +25 °C 120Hz Max. | ESR (Ω) @ +25 °C 100KHz Max. |
|---|-----------|------------------------|-------------------------------------|----------------------------|---------------------------------------|
| 4 volt Rating @ +85 °C (2.5 volt Rating @ +125 °C) | | | | | |
| TCSCS0G224*PAR | P | 0.22 | 0.5 | 4 | 25 |
| TCSCS0G474*PAR | P | 0.47 | 0.5 | 4 | 25 |
| TCSCS0G684*PAR | P | 0.68 | 0.5 | 4 | 20 |
| TCSCS0G105*PAR | P | 1 | 0.5 | 6 | 20 |
| TCSCS0G225*PAR | P | 2.2 | 0.5 | 6 | 15 |
| TCSCS0G335*PAR | P | 3.3 | 0.5 | 6 | 8 |
| TCSCS0G475*PAR | P | 4.7 | 0.5 | 8 | 9 |
| TCSCS0G685*PAR | P | 6.8 | 0.5 | 6 | 8 |
| TCSCS0G106*PAR | P | 10 | 0.5 | 8 | 6 |
| TCSCS0G226*PAR | P | 22 | 0.9 | 8 | 3 |
| 6.3 volt Rating @ +85 °C (4 volt Rating @ +125 °C) | | | | | |
| TCSCS0J224*PAR | P | 0.22 | 0.5 | 4 | 25 |
| TCSCS0J474*PAR | P | 0.47 | 0.5 | 4 | 25 |
| TCSCS0J684*PAR | P | 0.68 | 0.5 | 4 | 20 |
| TCSCS0J105*PAR | P | 1 | 0.5 | 6 | 20 |
| TCSCS0J225*PAR | P | 2.2 | 0.5 | 6 | 15 |
| TCSCS0J335*PAR | P | 3.3 | 0.5 | 6 | 8 |
| TCSCS0J475*PAR | P | 4.7 | 0.5 | 8 | 9 |
| TCSCS0J685*PAR | P | 6.8 | 0.5 | 6 | 8 |
| TCSCS0J106*PAR | P | 10 | 0.6 | 8 | 5 |
| TCSCS0J226MPAR | P | 22 | 1.4 | 8 | 4 |
| TCSCS0J336MPAR | P | 33 | 2.1 | 18 | 2 |
| 10 volt Rating @ +85 °C (6.3 volt Rating @ +125 °C) | | | | | |
| TCSCS1A224*PAR | P | 0.22 | 0.5 | 4 | 25 |
| TCSCS1A474*PAR | P | 0.47 | 0.5 | 4 | 25 |
| TCSCS1A684*PAR | P | 0.68 | 0.5 | 4 | 20 |
| TCSCS1A105*PAR | P | 1 | 0.5 | 6 | 20 |
| TCSCS1A225*PAR | P | 2.2 | 0.5 | 6 | 15 |
| TCSCS1A335*PAR | P | 3.3 | 0.5 | 6 | 8 |
| TCSCS1A475*PAR | P | 4.7 | 0.5 | 8 | 4 |
| TCSCS1A106*PAR | P | 10 | 1.0 | 8 | 6 |
| 16 volt Rating @ +85 °C (10 volt Rating @ +125 °C) | | | | | |
| TCSCS1C224*PAR | P | 0.22 | 0.5 | 6 | 25 |
| TCSCS1C474*PAR | P | 0.47 | 0.5 | 6 | 25 |
| TCSCS1C684*PAR | P | 0.68 | 0.5 | 6 | 20 |
| TCSCS1C105*PAR | P | 1.0 | 0.5 | 6 | 20 |
| TCSCS1C225*PAR | P | 2.2 | 0.5 | 6 | 6.5 |
| 20 volt Rating @ +85 °C (13 volt Rating @ +125 °C) | | | | | |
| TCSCS1D474*PAR | P | 0.47 | 0.5 | 4 | 25 |
| TCSCS1D684*PAR | P | 0.68 | 0.5 | 4 | 20 |

All technical data relates to an ambient temperature of +25 °C.
 Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.0 volts.
 DCL is measured at rated voltage after 5 minutes.
 * Insert K for $\pm 10\%$ tolerance and M for $\pm 20\%$.