

CHIP TANTALUM CAPACITOR - SMD

SOLID ELECTROLYTE, HIGH VOLUMETRIC EFFICIENCY, STABLEELECTRIC PERFORMANCES

FEATURES

- Molded case available in six case codes
- Compatible with all popular “High Volume” automatic pick and equipment
- Optical character recognition qualified

SPECIFICATIONS

| OPERATING TEMPERATURE | -55 ~ +125°C (>85°C applying derated voltage) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|-------------------------|--------------------|-----|--------------------|------------------|------------------|-----------------|--|-----|-----|------|-----|-----|------|-----|------|-----|--|--|---|---|---|------------------|------------------|-----|--|--|----|----|----|-----|--|--|----|----|----|
| RATED VOLTAGE RANGE | 4 ~ 50VDC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAPACITANCE TOLERANCE | K: (±10%), M: (±20%) (20°C, 120HZ/100HZ) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LEAKAGE CURRENT | $I_{o} \leq 0.01CRUR$ OR $0.5 \mu A(20^{\circ}C)$ (whichever is greater) Measured after 5 minutes application of rated voltage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LOAD LIFE | CR-(μF) Nominal Capacitance; UR-(V) Rated Voltage 85°C, After applying rated voltage for 2000 giyrs at 85°C Capacitance change: within +10% of the initial value Dissipation factor: Not more than 150% of the specified value Leakage current: Not more than the specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TEMPERATURE CHARACTERISTIC | <table border="1"> <thead> <tr> <th colspan="3">Dissipation Factor (°C)</th> <th colspan="3">Capacitance Change</th> <th colspan="2">Leakage Current</th> </tr> <tr> <th>-55</th> <th>+85</th> <th>+125</th> <th>-55</th> <th>+85</th> <th>+125</th> <th>+85</th> <th>+125</th> </tr> </thead> <tbody> <tr> <td colspan="3">-10</td> <td>6</td> <td>6</td> <td>6</td> <td rowspan="3">10I_o</td> <td rowspan="3">12I_o</td> </tr> <tr> <td colspan="3">+10</td> <td>10</td> <td>10</td> <td>10</td> </tr> <tr> <td colspan="3">+12</td> <td>12</td> <td>12</td> <td>12</td> </tr> </tbody> </table> | Dissipation Factor (°C) | | | Capacitance Change | | | Leakage Current | | -55 | +85 | +125 | -55 | +85 | +125 | +85 | +125 | -10 | | | 6 | 6 | 6 | 10I _o | 12I _o | +10 | | | 10 | 10 | 10 | +12 | | | 12 | 12 | 12 |
| Dissipation Factor (°C) | | | Capacitance Change | | | Leakage Current | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -55 | +85 | +125 | -55 | +85 | +125 | +85 | +125 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -10 | | | 6 | 6 | 6 | 10I _o | 12I _o | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| +10 | | | 10 | 10 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| +12 | | | 12 | 12 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

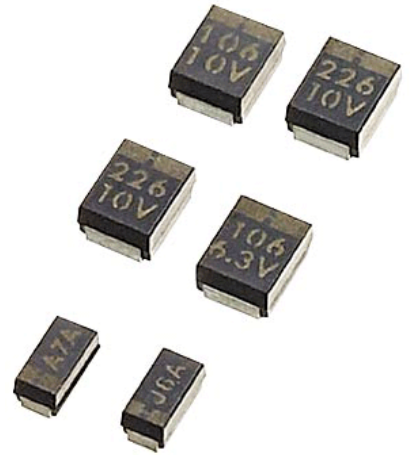
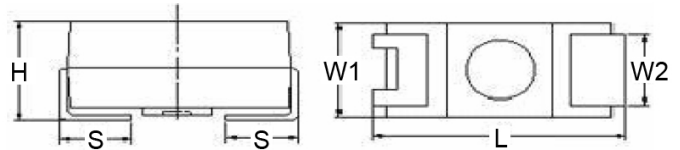


Diagram of Dimensions

| Case Size | L+0.3 | W1+0.3 | H+0.3 | S+0.3 | W2+0.2 |
|-----------|-------|--------|-------|-------|--------|
| P | 2012 | 2.0 | 1.2 | 0.5 | 1.2 |
| A | 3216 | 3.2 | 1.6 | 0.8 | 1.2 |
| B | 3528 | 3.5 | 2.8 | 0.8 | 2.2 |
| C | 6032 | 6.0 | 3.2 | 1.3 | 2.2 |
| D | 7343 | 7.3 | 4.3 | 1.3 | 2.4 |
| E | 7343 | 7.3 | 4.3 | 4.0 | 2.4 |



Case Size, Derated Voltage & Surge Voltage

| U _R | V | 4 | 6.3 | 10 | 16 | 20 | 25 | 35 | 50 |
|---------------------------------|-------|--|-------|-------|-------|-------|-------|-------|-----|
| Voltage Derating (V) | | 2.5 | 4 | 6.3 | 10 | 13 | 16 | 23 | 32 |
| Surge Voltage +85°C (V) | | 5 | 8 | 13 | 20 | 26 | 32 | 46 | 65 |
| Surge Voltage +125°C (V) | | 3.4 | 5.0 | 9 | 12 | 16 | 20 | 26 | 38 |
| CR | | Case Size (standard / miniature / Super miniature) | | | | | | | |
| μF | | | | | | | | | |
| 0.1 | | | | | | | | A | A/B |
| 0.15 | | | | | | | | A | A/B |
| 0.22 | | | | | | | | A | A/B |
| 0.33 | | | | | | | A | A | A/B |
| 0.47 | | | | | P | P | A | A/B | A/C |
| 0.68 | | | | P | A/P | A/P | A | A/B | A/C |
| 1.0 | A | A | A/P | A/P | A | A | A | A/B | C |
| 1.5 | A/P | A | A/P | A | A/B | A/B | A/B | A/B/C | D |
| 2.2 | A/P | A | A/P | A/B | A/B | A/B | A/B | B/C | C/D |
| 3.3 | A/P | A | A/P | A/B | A/B | A/B/C | A/B/C | C/D | D |
| 4.7 | A/P | A | A/B/P | A/B | A/B/C | B/C | B/C | C/D | D |
| 6.8 | A/P | A | A/B | A/B | B/C | B/C | B/C | C/D | D |
| 10 | A/P | A/B | A/B | A/B/C | B/C/D | B/C/D | B/C/D | C/D | |
| 15 | A/B | A | A/B/C | B/C | C | C | C/D | D/E | |
| 22 | A/B | A/B/C | A/B/C | B/C/D | C/D | C/D | D | | |
| 33 | B/C | A/B | B/C/D | C/D | C/D | C/D | D/E | | |
| 47 | B/C | B/C | B/C/D | C/D | C/D | D/E | D/E | | |
| 68 | B/C | B/C/D | C/D | C/D | C/D | D/E | | | |
| 100 | B/C | B/C | C/D | D/E | | | | | |
| 150 | C/D/E | C/D | D/E | E | | | | | |
| 220 | C/D/E | C/D | D | | | | | | |
| 330 | E | D | | | | | | | |