

# F93 Series



## Resin-Molded Chip, Standard Tantalum J-Lead



### FEATURES

- Compliant to the RoHS2 directive 2011/65/EU
- SMD J-lead

### APPLICATIONS

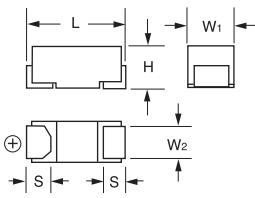
- Low power DC/DC



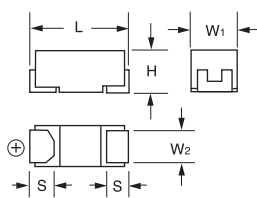
### CASE DIMENSIONS: millimeters (inches)

| Code | EIA Code | EIA Metric | L                              | W <sub>1</sub>                 | W <sub>2</sub>                 | H                              | S                              |
|------|----------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| A    | 1206     | 3216-18    | 3.20 ± 0.20<br>(0.126 ± 0.008) | 1.60 ± 0.20<br>(0.063 ± 0.008) | 1.20 ± 0.10<br>(0.047 ± 0.004) | 1.60 ± 0.20<br>(0.063 ± 0.008) | 0.80 ± 0.20<br>(0.031 ± 0.008) |
| B    | 1210     | 3528-21    | 3.50 ± 0.20<br>(0.126 ± 0.008) | 2.80 ± 0.20<br>(0.110 ± 0.008) | 2.20 ± 0.10<br>(0.087 ± 0.004) | 1.90 ± 0.20<br>(0.075 ± 0.008) | 0.80 ± 0.20<br>(0.031 ± 0.008) |
| C    | 2312     | 6032-27    | 6.00 ± 0.20<br>(0.236 ± 0.008) | 3.20 ± 0.20<br>(0.126 ± 0.008) | 2.20 ± 0.10<br>(0.087 ± 0.004) | 2.50 ± 0.20<br>(0.098 ± 0.008) | 1.30 ± 0.20<br>(0.051 ± 0.008) |
| N    | 2917     | 7343-30    | 7.30 ± 0.20<br>(0.287 ± 0.008) | 4.30 ± 0.20<br>(0.169 ± 0.008) | 2.40 ± 0.10<br>(0.094 ± 0.004) | 2.80 ± 0.20<br>(0.110 ± 0.008) | 1.30 ± 0.20<br>(0.051 ± 0.008) |

#### A, B CASE



#### C, N CASE



### MARKING

| A CASE             | B CASE            | C CASE            | N CASE            |
|--------------------|-------------------|-------------------|-------------------|
| Capacitance Code   | Capacitance (μF)  | Capacitance (μF)  | Capacitance (μF)  |
| ⊕ C 685            | ⊕ 22 16V          | ⊕ 47 16V          | ⊕ 100 16V         |
| Rated Voltage Code | Rated Voltage (V) | Rated Voltage (V) | Rated Voltage (V) |
|                    |                   |                   |                   |
| 4V G               | 20V D             |                   |                   |
| 6.3V J             | 25V E             |                   |                   |
| 10V A              | 35V V             |                   |                   |
| 16V C              |                   |                   |                   |

### HOW TO ORDER

|            |               |                                                                                                                    |                      |                 |                                   |
|------------|---------------|--------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------------------------|
| <b>F93</b> | <b>1A</b>     | <b>106</b>                                                                                                         | <b>M</b>             | <b>A</b>        |                                   |
| Type       | Rated Voltage | Capacitance Code                                                                                                   | Tolerance            | Case Size       | Packaging                         |
|            |               | pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow) | K = ±10%<br>M = ±20% | See table above | See Tape & Reel Packaging Section |

### TECHNICAL SPECIFICATIONS

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Category Temperature Range:       | -55 to +125°C                                                                                                                                                                                                                                                                                                                                                                                       |
| Rated Temperature:                | +85°C                                                                                                                                                                                                                                                                                                                                                                                               |
| Capacitance Tolerance:            | ±20%, ±10% at 120Hz                                                                                                                                                                                                                                                                                                                                                                                 |
| Dissipation Factor:               | Refer to next page                                                                                                                                                                                                                                                                                                                                                                                  |
| ESR 100kHz:                       | Refer to next page                                                                                                                                                                                                                                                                                                                                                                                  |
| Leakage Current:                  | After 1 minute's application of rated voltage, leakage current at 20°C is not more than 0.01CV or 0.5μA, whichever is greater.<br>After 1 minute's application of rated voltage, leakage current at 85°C is not more than 0.1CV or 5μA, whichever is greater.<br>After 1 minute's application of derated voltage, leakage current at 125°C is not more than 0.125CV or 6.3μA, whichever is greater. |
| Capacitance Change By Temperature | +15% Max. at +125°C<br>+10% Max. at +85°C<br>-10% Max. at -55°C                                                                                                                                                                                                                                                                                                                                     |

# F93 Series



## Resin-Molded Chip, Standard Tantalum J-Lead

### CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance |      | Rated Voltage |           |          |          |          |          |          |
|-------------|------|---------------|-----------|----------|----------|----------|----------|----------|
| μF          | Code | 4V (0G)       | 6.3V (0J) | 10V (1A) | 16V (1C) | 20V (1D) | 25V (1E) | 35V (1V) |
| 0.68        | 684  |               |           |          |          |          |          | A        |
| 1.0         | 105  |               |           |          | A        |          | A        | A        |
| 1.5         | 155  |               |           |          | A        |          | A        | A        |
| 2.2         | 225  |               |           |          | A        | A        | A        | A/B      |
| 3.3         | 335  |               |           |          | A        | A        | A        | B        |
| 4.7         | 475  |               |           | A        | A        | A/B      | A/B      | B/C      |
| 6.8         | 685  |               |           | A        | A        | A/B      |          | C        |
| 10          | 106  |               | A         | A        | A/B      | A/B      | B/C      | C        |
| 15          | 156  |               | A         | A        | A/B      | C        | C        | N        |
| 22          | 226  | A             | A         | A/B      | A/B/C    | B/C      | C/N      | N        |
| 33          | 336  | A             | A         | A/B      | B/C      | C/N      | N        | N        |
| 47          | 476  | A             | A/B       | A/B/C    | B/C/N    | C/N      | N        |          |
| 68          | 686  | A             | A/B       | B/C      | C/N      | N*       |          |          |
| 100         | 107  | A/B           | A/B/C     | B/C/N    | C/N      |          |          |          |
| 150         | 157  | B             | B/C       | C/N      | N        |          |          |          |
| 220         | 227  | A*/B/C        | B/C/N     | C/N      | N        |          |          |          |
| 330         | 337  | C             | C*/N      | N        |          |          |          |          |
| 470         | 447  | N             | N         |          |          |          |          |          |
| 680         | 687  | N             | N*        |          |          |          |          |          |

Released ratings

\*Ratings under development – subject to change

Please contact to your local AVX sales office when these series are being designed in your application.

### RATINGS & PART NUMBER REFERENCE

| AVX Part No.    | Case Size | Capacitance (μF) | Rated Voltage (V) | DCL (μA) | DF @ 120Hz (%) | ESR @ 100kHz (Ω) | *1 ΔC/C (%) | MSL |
|-----------------|-----------|------------------|-------------------|----------|----------------|------------------|-------------|-----|
| <b>4 Volt</b>   |           |                  |                   |          |                |                  |             |     |
| F930G226MAA     | A         | 22               | 4                 | 0.9      | 6              | 2.5              | *           | 1   |
| F930G336MAA     | A         | 33               | 4                 | 1.3      | 8              | 2.5              | *           | 1   |
| F930G476MAA     | A         | 47               | 4                 | 1.9      | 18             | 2.5              | *           | 1   |
| F930G686MAA     | A         | 68               | 4                 | 2.7      | 24             | 2.5              | *           | 1   |
| F930G107MAA     | A         | 100              | 4                 | 4.0      | 30             | 2.0              | *           | 1   |
| F930G107MBA     | B         | 100              | 4                 | 4.0      | 14             | 0.9              | *           | 1   |
| F930G157MBA     | B         | 150              | 4                 | 6.0      | 16             | 0.7              | *           | 1   |
| F930G227MBA     | B         | 220              | 4                 | 8.8      | 18             | 0.7              | *           | 1   |
| F930G227MCC     | C         | 220              | 4                 | 8.8      | 12             | 0.7              | *           | 1   |
| F930G337MCC     | C         | 330              | 4                 | 13.2     | 14             | 0.7              | *           | 1   |
| F930G477MNC     | N         | 470              | 4                 | 18.8     | 16             | 0.3              | *           | 1   |
| F930G687MNC     | N         | 680              | 4                 | 27.2     | 18             | 0.3              | *           | 1   |
| <b>6.3 Volt</b> |           |                  |                   |          |                |                  |             |     |
| F930J106MAA     | A         | 10               | 6.3               | 0.6      | 6              | 3.0              | *           | 1   |
| F930J156MAA     | A         | 15               | 6.3               | 0.9      | 6              | 2.9              | *           | 1   |
| F930J226MAA     | A         | 22               | 6.3               | 1.4      | 8              | 2.5              | *           | 1   |
| F930J336MAA     | A         | 33               | 6.3               | 2.1      | 8              | 2.5              | *           | 1   |
| F930J476MAA     | A         | 47               | 6.3               | 3.0      | 18             | 2.5              | *           | 1   |
| F930J476MBA     | B         | 47               | 6.3               | 3.0      | 6              | 1.0              | *           | 1   |
| F930J686MAA     | A         | 68               | 6.3               | 4.3      | 20             | 2.0              | *           | 1   |
| F930J686MBA     | B         | 68               | 6.3               | 4.3      | 8              | 1.0              | *           | 1   |
| F930J107MAA     | A         | 100              | 6.3               | 6.3      | 35             | 2.0              | ±15         | 1   |
| F930J107MBA     | B         | 100              | 6.3               | 6.3      | 14             | 0.9              | *           | 1   |
| F930J107MCC     | C         | 100              | 6.3               | 6.3      | 8              | 0.7              | *           | 1   |
| F930J157MBA     | B         | 150              | 6.3               | 9.5      | 18             | 0.9              | *           | 1   |
| F930J157MCC     | C         | 150              | 6.3               | 9.5      | 12             | 0.7              | *           | 1   |
| F930J227MBA     | B         | 220              | 6.3               | 13.9     | 30             | 1.2              | ±15         | 3   |
| F930J227MCC     | C         | 220              | 6.3               | 13.9     | 14             | 0.7              | *           | 1   |
| F930J227MNC     | N         | 220              | 6.3               | 13.9     | 10             | 0.5              | *           | 1   |
| F930J337MNC     | N         | 330              | 6.3               | 20.8     | 14             | 0.5              | *           | 1   |
| F930J477MNC     | N         | 470              | 6.3               | 29.6     | 16             | 0.3              | *           | 1   |
| <b>10 Volt</b>  |           |                  |                   |          |                |                  |             |     |
| F931A475MAA     | A         | 4.7              | 10                | 0.5      | 6              | 4.0              | *           | 1   |
| F931A685MAA     | A         | 6.8              | 10                | 0.7      | 6              | 3.5              | *           | 1   |
| F931A106MAA     | A         | 10               | 10                | 1.0      | 6              | 3.0              | *           | 1   |
| F931A156MAA     | A         | 15               | 10                | 1.5      | 8              | 2.9              | *           | 1   |
| F931A226MAA     | A         | 22               | 10                | 2.2      | 12             | 2.5              | *           | 1   |
| F931A226MBA     | B         | 22               | 10                | 2.2      | 6              | 1.9              | *           | 1   |
| F931A336MAA     | A         | 33               | 10                | 3.3      | 18             | 2.5              | *           | 1   |
| F931A336MBA     | B         | 33               | 10                | 3.3      | 8              | 1.4              | *           | 1   |
| F931A476MAA     | A         | 47               | 10                | 4.7      | 40             | 2.0              | ±15         | 1   |
| F931A476MBA     | B         | 47               | 10                | 4.7      | 8              | 1.0              | *           | 1   |
| F931A476MCC     | C         | 47               | 10                | 4.7      | 6              | 0.9              | *           | 1   |
| F931A686MBA     | B         | 68               | 10                | 6.8      | 12             | 0.9              | ±15         | 1   |
| F931A686MCC     | C         | 68               | 10                | 6.8      | 8              | 0.8              | *           | 1   |
| F931A107MBA     | B         | 100              | 10                | 10.0     | 18             | 1.2              | ±15         | 1   |
| F931A107MCC     | C         | 100              | 10                | 10.0     | 10             | 0.7              | *           | 1   |
| F931A107MNC     | N         | 100              | 10                | 10.0     | 8              | 0.6              | *           | 3   |
| F931A157MCC     | C         | 150              | 10                | 15.0     | 14             | 0.7              | *           | 1   |
| F931A157MNC     | N         | 150              | 10                | 15.0     | 10             | 0.6              | *           | 1   |
| F931A227MCC     | C         | 220              | 10                | 22.0     | 40             | 0.9              | ±15         | 1   |
| F931A227MNC     | N         | 220              | 10                | 22.0     | 12             | 0.5              | *           | 3   |
| F931A337MNC     | N         | 330              | 10                | 33.0     | 18             | 0.5              | *           | 1   |
| <b>16 Volt</b>  |           |                  |                   |          |                |                  |             |     |
| F931C105MAA     | A         | 1                | 16                | 0.5      | 4              | 7.5              | *           | 1   |
| F931C155MAA     | A         | 1.5              | 16                | 0.5      | 4              | 6.0              | *           | 1   |
| F931C225MAA     | A         | 2.2              | 16                | 0.5      | 4              | 5.0              | *           | 1   |
| F931C335MAA     | A         | 3.3              | 16                | 0.5      | 4              | 4.5              | *           | 1   |
| F931C475MAA     | A         | 4.7              | 16                | 0.8      | 6              | 4.0              | *           | 1   |
| F931C685MAA     | A         | 6.8              | 16                | 1.1      | 6              | 3.5              | *           | 1   |

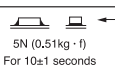
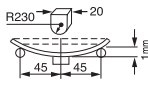
\*1: ΔC/C Marked “\*”

| Item                      | All Case (%) |
|---------------------------|--------------|
| Damp Heat                 | ±10          |
| Temperature cycles        | ±5           |
| Resistance soldering heat | ±5           |
| Surge                     | ±5           |
| Endurance                 | ±10          |

| AVX Part No.   | Case Size | Capacitance (μF) | Rated Voltage (V) | DCL (μA) | DF @ 120Hz (%) | ESR @ 100kHz (Ω) | *1 ΔC/C (%) | MSL |
|----------------|-----------|------------------|-------------------|----------|----------------|------------------|-------------|-----|
| F931C106MAA    | A         | 10               | 16                | 1.6      | 6              | 3.0              | *           | 1   |
| F931C106MBA    | B         | 10               | 16                | 1.6      | 6              | 2.0              | *           | 1   |
| F931C156MAA    | A         | 15               | 16                | 2.4      | 10             | 3.0              | *           | 1   |
| F931C156MBA    | B         | 15               | 16                | 2.4      | 6              | 2.0              | *           | 1   |
| F931C226MAA    | A         | 22               | 16                | 3.5      | 15             | 3.0              | ±15         | 1   |
| F931C226MBA    | B         | 22               | 16                | 3.5      | 8              | 1.9              | *           | 1   |
| F931C226MCC    | C         | 22               | 16                | 3.5      | 6              | 1.1              | *           | 1   |
| F931C336MBA    | B         | 33               | 16                | 5.3      | 8              | 1.9              | *           | 1   |
| F931C336MCC    | C         | 33               | 16                | 5.3      | 6              | 1.1              | *           | 1   |
| F931C476MBA    | B         | 47               | 16                | 7.5      | 16             | 2.0              | ±15         | 1   |
| F931C476MCC    | C         | 47               | 16                | 7.5      | 8              | 0.9              | *           | 1   |
| F931C476MNC    | N         | 47               | 16                | 7.5      | 6              | 0.7              | *           | 1   |
| F931C686MCC    | C         | 68               | 16                | 10.9     | 10             | 0.8              | ±10         | 1   |
| F931C686MNC    | N         | 68               | 16                | 10.9     | 6              | 0.6              | *           | 1   |
| F931C107MCC    | C         | 100              | 16                | 16.0     | 15             | 0.7              | ±10         | 1   |
| F931C107MNC    | N         | 100              | 16                | 16.0     | 10             | 0.6              | *           | 3   |
| F931C157MNC    | N         | 150              | 16                | 24.0     | 15             | 0.6              | *           | 1   |
| F931C227MNC    | N         | 220              | 16                | 35.2     | 25             | 0.7              | ±10         | 3   |
| <b>20 Volt</b> |           |                  |                   |          |                |                  |             |     |
| F931D225MAA    | A         | 2.2              | 20                | 0.5      | 4              | 5.0              | *           | 1   |
| F931D335MAA    | A         | 3.3              | 20                | 0.7      | 4              | 4.5              | *           | 1   |
| F931D475MAA    | A         | 4.7              | 20                | 0.9      | 6              | 3.0              | *           | 1   |
| F931D475MBA    | B         | 4.7              | 20                | 0.9      | 6              | 2.8              | *           | 1   |
| F931D685MAA    | A         | 6.8              | 20                | 1.4      | 6              | 3.5              | *           | 1   |
| F931D685MBA    | B         | 6.8              | 20                | 1.4      | 6              | 2.5              | *           | 1   |
| F931D106MAA    | A         | 10               | 20                | 2.0      | 8              | 3.5              | *           | 1   |
| F931D106MBA    | B         | 10               | 20                | 2.0      | 6              | 2.1              | *           | 1   |
| F931D156MCC    | C         | 15               | 20                | 3.0      | 6              | 1.2              | *           | 1   |
| F931D226MBA    | B         | 22               | 20                | 4.4      | 8              | 1.9              | *           | 1   |
| F931D226MCC    | C         | 22               | 20                | 4.4      | 8              | 1.1              | *           | 1   |
| F931D336MCC    | C         | 33               | 20                | 6.6      | 8              | 1.1              | *           | 1   |
| F931D336MNC    | N         | 33               | 20                | 6.6      | 6              | 0.7              | *           | 1   |
| F931D476MCC    | C         | 47               | 20                | 9.4      | 10             | 1.1              | *           | 1   |
| F931D476MNC    | N         | 47               | 20                | 9.4      | 8              | 0.7              | *           | 1   |
| <b>25 Volt</b> |           |                  |                   |          |                |                  |             |     |
| F931E105MAA    | A         | 1                | 25                | 0.5      | 4              | 7.5              | *           | 1   |
| F931E155MAA    | A         | 1.5              | 25                | 0.5      | 4              | 6.7              | *           | 1   |
| F931E225MAA    | A         | 2.2              | 25                | 0.6      | 6              | 6.3              | *           | 1   |
| F931E335MAA    | A         | 3.3              | 25                | 0.8      | 6              | 6.0              | *           | 1   |
| F931E475MAA    | A         | 4.7              | 25                | 1.2      | 8              | 4.0              | *           | 1   |
| F931E475MBA    | B         | 4.7              | 25                | 1.2      | 6              | 2.8              | *           | 1   |
| F931E106MBA    | B         | 10               | 25                | 2.5      | 12             | 1.9              | *           | 1   |
| F931E106MCC    | C         | 10               | 25                | 2.5      | 6              | 1.5              | *           | 1   |
| F931E156MCC    | C         | 15               | 25                | 3.8      | 8              | 1.2              | *           | 1   |
| F931E226MCC    | C         | 22               | 25                | 5.5      | 8              | 1.1              | *           | 1   |
| F931E226MNC    | N         | 22               | 25                | 5.5      | 6              | 0.7              | *           | 1   |
| F931E336MNC    | N         | 33               | 25                | 8.3      | 8              | 0.7              | *           | 1   |
| F931E476MNC    | N         | 47               | 25                | 11.8     | 8              | 0.7              | *           | 1   |
| <b>35 Volt</b> |           |                  |                   |          |                |                  |             |     |
| F931V684MAA    | A         | 0.68             | 35                | 0.5      | 4              | 7.6              | *           | 1   |
| F931V105MAA    | A         | 1                | 35                | 0.5      | 4              | 7.5              | *           | 1   |
| F931V155MAA    | A         | 1.5              | 35                | 0.5      | 6              | 7.5              | *           | 1   |
| F931V225MAA    | A         | 2.2              | 35                | 0.8      | 6              | 7.0              | *           | 1   |
| F931V225MBA    | B         | 2.2              | 35                | 0.8      | 4              | 3.8              | *           | 1   |
| F931V335MBA    | B         | 3.3              | 35                | 1.2      | 4              | 3.5              | *           | 1   |
| F931V475MBA    | B         | 4.7              | 35                | 1.6      | 8              | 3.1              | *           | 1   |
| F931V475MCC    | C         | 4.7              | 35                | 1.6      | 6              | 1.8              | *           | 1   |
| F931V685MCC    | C         | 6.8              | 35                | 2.4      | 6              | 1.8              | *           | 1   |
| F931V106MCC    | C         | 10               | 35                | 3.5      | 6              | 1.6              | *           | 1   |
| F931V156MNC    | N         | 15               | 35                | 5.3      | 6              | 0.7              | *           | 1   |
| F931V226MNC    | N         | 22               | 35                | 7.7      | 8              | 0.7              | *           | 1   |
| F931V336MNC    | N         | 33               | 35                | 11.6     | 8              | 0.7              | *           | 1   |

\* In case of capacitance tolerance ± 10% type, “K” will be put at 9th digit of type numbering system  
Moisture Sensitivity Level (MSL) is defined according to J-STD-020.

### QUALIFICATION TABLE

| TEST                                | F93 series (Temperature range -55°C to +125°C)                                                                                                                                                                                                                                                                                                                                                           |                                                                                      |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                     | Condition                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |
| <b>Damp Heat (Steady State)</b>     | At 40°C, 90 to 95% R.H., 500 hours (No voltage applied)<br>Capacitance Change ..... Refer to page 32 (*1)<br>Dissipation Factor ..... Initial specified value or less<br>Leakage Current ..... Initial specified value or less                                                                                                                                                                           |                                                                                      |
| <b>Temperature Cycles</b>           | -55°C / +125°C, 30 minutes each, 5 cycles<br>Capacitance Change ..... Refer to page 32 (*1)<br>Dissipation Factor ..... Initial specified value or less<br>Leakage Current ..... Initial specified value or less                                                                                                                                                                                         |                                                                                      |
| <b>Resistance to Soldering Heat</b> | 10 seconds reflow at 260°C, 5 seconds immersion at 260°C.<br>Capacitance Change ..... Refer to page 32 (*1)<br>Dissipation Factor ..... Initial specified value or less<br>Leakage Current ..... Initial specified value or less                                                                                                                                                                         |                                                                                      |
| <b>Surge</b>                        | After application of surge voltage in series with a 33Ω resistor at the rate of 30 seconds ON, 30 seconds OFF, for 1000 successive test cycles at 85°C, capacitors shall meet the characteristic requirements in the table above.<br>Capacitance Change ..... Refer to page 32 (*1)<br>Dissipation Factor ..... Initial specified value or less<br>Leakage Current ..... Initial specified value or less |                                                                                      |
| <b>Endurance</b>                    | After 2000 hours' application of rated voltage in series with a 3Ω resistor at 85°C, or derated voltage in series with a 3Ω resistor at 125°C, capacitors shall meet the characteristic requirements in the table above.<br>Capacitance Change ..... Refer to page 32 (*1)<br>Dissipation Factor ..... Initial specified value or less<br>Leakage Current ..... Initial specified value or less          |                                                                                      |
| <b>Shear Test</b>                   | After applying the pressure load of 5N for 10±1 seconds horizontally to the center of capacitor side body which has no electrode and has been soldered beforehand on a substrate, there shall be found neither exfoliation nor its sign at the terminal electrode.                                                                                                                                       |   |
| <b>Terminal Strength</b>            | Keeping a capacitor surface-mounted on a substrate upside down and supporting the substrate at both of the opposite bottom points 45mm apart from the center of capacitor, the pressure strength is applied with a specified jig at the center of substrate so that the substrate may bend by 1mm as illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals.       |  |
| <b>Failure Rate</b>                 | 1% per 1000 hours at 85°C, VR with 0.1Ω/V series impedance, 60% confidence level.                                                                                                                                                                                                                                                                                                                        |                                                                                      |

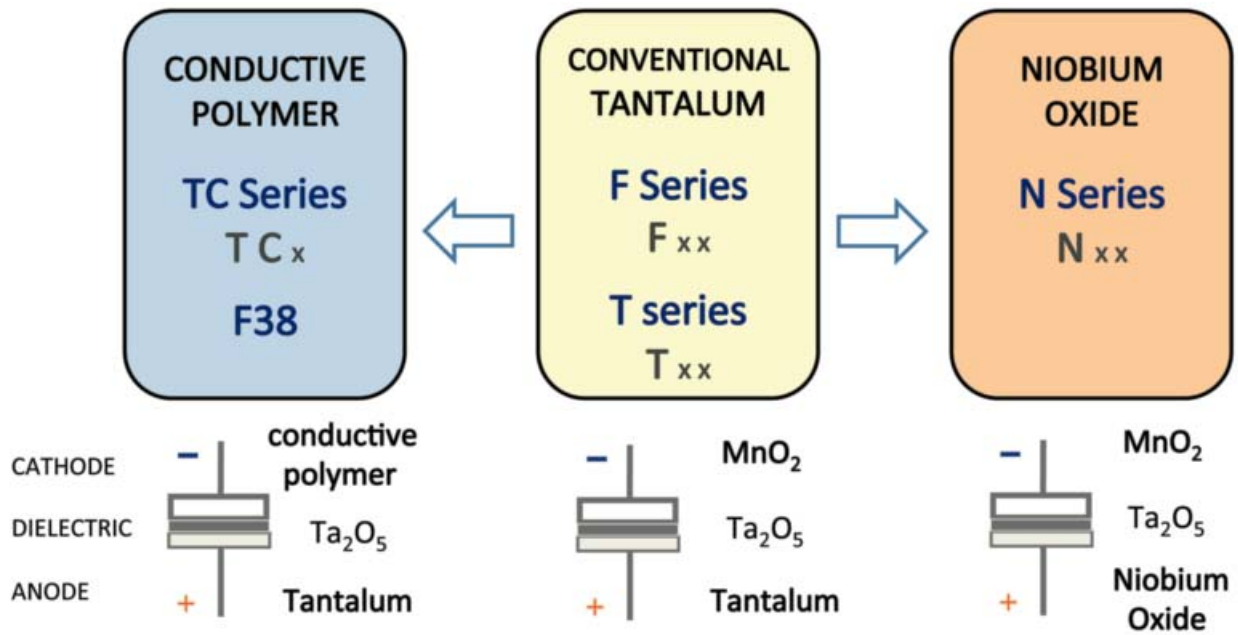
We can supply the type of compliance to AEC-Q200. Please contact to your local AVX sales office when these series are being designed in your application.

# F93 Series

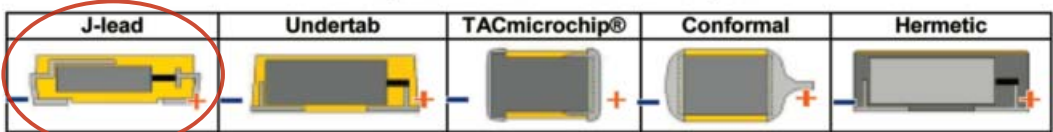
Resin-Molded Chip, Standard Tantalum J-Lead



## AVX SOLID ELECTROLYTE CAPACITOR ROADMAP



### Five Capacitor Construction Styles



### SERIES LINE UP: CONVENTIONAL SMD MnO<sub>2</sub>

