

F98-AJ6 Series

Resin-Molded Chip, High CV Facedown - Automotive Range



FEATURES

- Compliant to the RoHS3 directive 2015/863/EU
- SMD Face Down Design
- Small and Low Profile
- Compliant to AEC-Q200
- 100% Surge Current Tested



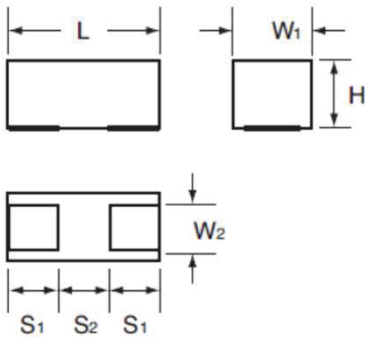
APPLICATIONS

- Infotainment
- Cabin Electronics
- Cameras
- Digital Millers

CASE DIMENSIONS:

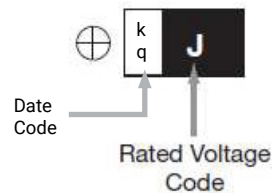
millimeters (inches)

| Code | EIA Code | EIA Metric | L | W ₁ | W ₂ | H | S ₁ | S ₂ |
|------|----------|------------|--|--|----------------------------|----------------------------|----------------------------|----------------------------|
| M | 0603 | 1608-09 | 1.60 ^{+0.20} _{-0.10} (0.063 ^{+0.008} _{-0.004}) | 0.85 ^{+0.20} _{-0.10} (0.033 ^{+0.008} _{-0.004}) | 0.65±0.10 (0.026±0.004) | 1.0 Max (0.039 Max) | 0.50±0.10 (0.020±0.004) | 0.60±0.10 (0.024±0.004) |
| S | 0805 | 2012-09 | 2.00 ^{+0.20} _{-0.10} (0.079 ^{+0.008} _{-0.004}) | 1.25 ^{+0.20} _{-0.10} (0.049 ^{+0.008} _{-0.004}) | 0.90±0.10 (0.035±0.004) | 0.80±0.10 (0.031±0.004) | 0.50±0.10 (0.020±0.004) | 1.00±0.10 (0.039±0.004) |

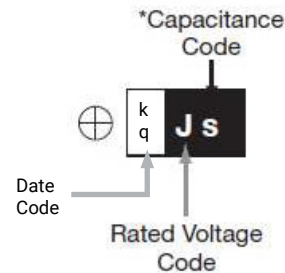


MARKING

M CASE



S CASE



HOW TO ORDER

| F98 Type | 1C Rated Voltage | 106 Capacitance Code pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow) | M Tolerance M = ± 20% | S Case Size See table above | <div><div></div><div>Packaging</div><table><tr><th>Code</th><th>Reel Dia (mm)</th><th>Tape Width (mm)</th><th>Qty (pcs)</th></tr><tr><td>A</td><td rowspan="2">Φ180</td><td>8</td><td>4000</td></tr><tr><td>U</td><td>1000</td></tr></table></div> | Code | Reel Dia (mm) | Tape Width (mm) | Qty (pcs) | A | Φ180 | 8 | 4000 | U | 1000 | AJ6 AEC-Q200 Compliant |
|--------------------|----------------------------|--|------------------------------------|--|--|------|---------------|-----------------|-----------|---|------|---|------|---|------|----------------------------------|
| Code | Reel Dia (mm) | Tape Width (mm) | Qty (pcs) | | | | | | | | | | | | | |
| A | Φ180 | 8 | 4000 | | | | | | | | | | | | | |
| U | | 1000 | | | | | | | | | | | | | | |

TECHNICAL SPECIFICATIONS

| | |
|-----------------------------|--|
| Category Temperature Range: | -55 to +125°C |
| Rated Temperature: | +85°C |
| Capacitance Tolerance: | ±20% at 120Hz |
| Dissipation Factor: | Refer to Ratings & Part Number Reference |
| ESR 100kHz: | Refer to Ratings & Part Number Reference |
| Leakage Current: | Refer to Ratings & Part Number Reference at 20°C after application of rated voltage for 5 minutes Provided that: After 5 minute's application of rated voltage, leakage current at 85°C 10 times or less than 20°C specified value. After 5 minute's application of rated voltage, leakage current at 125°C 12.5 times or less than 20°C specified value. |
| Termination Finish: | Gold Plating (standard) |

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CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance | | Rated Voltage | | | Cap Code |
|-------------|------|---------------|----------|----------|----------|
| μF | Code | 6.3 (0J) | 10V (1A) | 16V (1C) | |
| 4.7 | 475 | | M | M | S |
| 10 | 106 | | M | S | a |
| 22 | 226 | M* | S* | | J |
| 33 | 336 | M* | | | n |
| 47 | 476 | S* | | | s |

Released Ratings

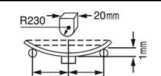
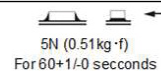
* Codes under development - subject to change

RATINGS & PART NUMBER REFERENCE

| AVX Part Number | Case Size | Cap (μF) | Rated Voltage (V) | DCL Max (μA) | DF Max (%@120Hz) | ESR Max (Ω@100kHz) | 100kHz RMS Current (mA) | | | ΔC/C | MSL |
|-----------------|-----------|----------|-------------------|--------------|------------------|--------------------|-------------------------|------|-------|------|-----|
| | | | | | | | 25°C | 85°C | 125°C | | |
| 10 Volt | | | | | | | | | | | |
| F981A475MMAAJ6 | M | 4.7 | 10 | 0.5 | 12 | 6 | 65 | 58 | 26 | ±30 | 3 |
| F981A106MMAAJ6 | M | 10 | 10 | 1.0 | 20 | 7.5 | 58 | 52 | 23 | ±30 | 3 |
| 16 Volt | | | | | | | | | | | |
| F981C475MMAAJ6 | M | 4.7 | 16 | 0.8 | 12 | 12 | 46 | 41 | 18 | ±30 | 3 |
| F981C106MSAAJ6 | S | 10 | 16 | 1.6 | 18 | 4 | 106 | 95 | 42 | ±30 | 3 |

QUALIFICATION TABLE

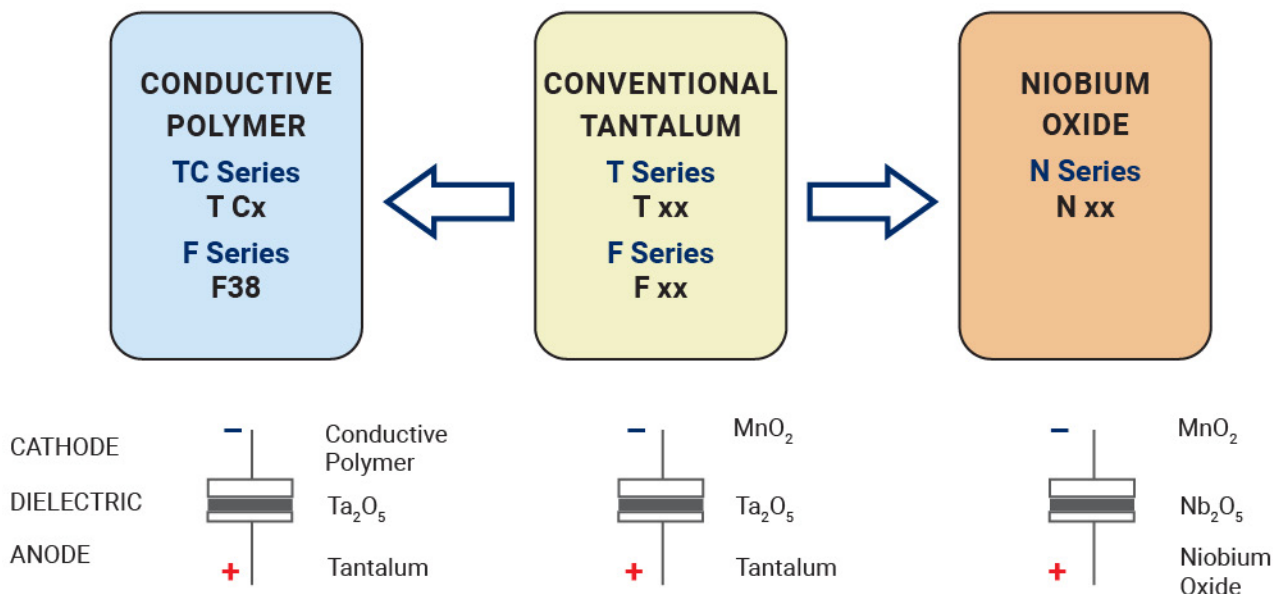
| Test | F98-AJ6 series (Temperature range -55°C to +125°C) | |
|-------------------------------------|---|--|
| | Condition | |
| Damp Heat (Steady State) | At 40°C, 90% R.H., 500 hours (No voltage applied) Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....200% or less of initial specified value | |
| Load Humidity | After 1000 hour's application of rated voltage in series with a 33Ω resistor at 85°C, 85% R.H., capacitors meet the characteristics requirements table below. Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....10 times or less of initial specified value | |
| Temperature Cycles | At -55°C / +125°C, 30 minutes each, 1000 cycles Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less initial specified value Leakage Current.....5 times or less of initial specified value | |
| Resistance to Soldering Heat | 10 seconds reflow at 260°C, 5 seconds immersion at 260°C Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....Initial specified value or less Leakage Current.....Initial specified value or less | |
| Surge | After application of surge voltage in series with a 1kΩ 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. Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....200% or less of initial specified value | |
| Endurance | After 1000 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. Capacitance Change.....Refer to Ratings & Part Number Reference Dissipation Factor.....150% or less of initial specified value Leakage Current.....200% or less of initial specified value | |
| Shear Test | After applying the pressure load of 5N for 60+1/-0 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. | |
| Terminal Strength | 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 | |



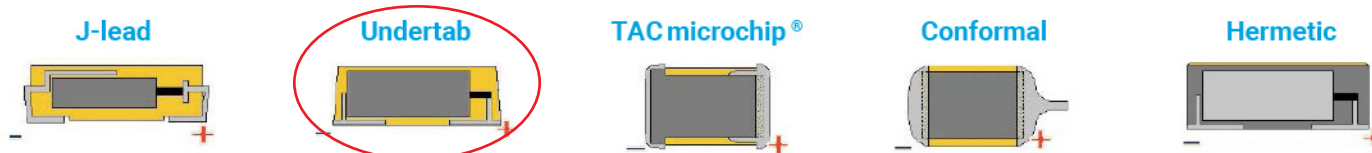
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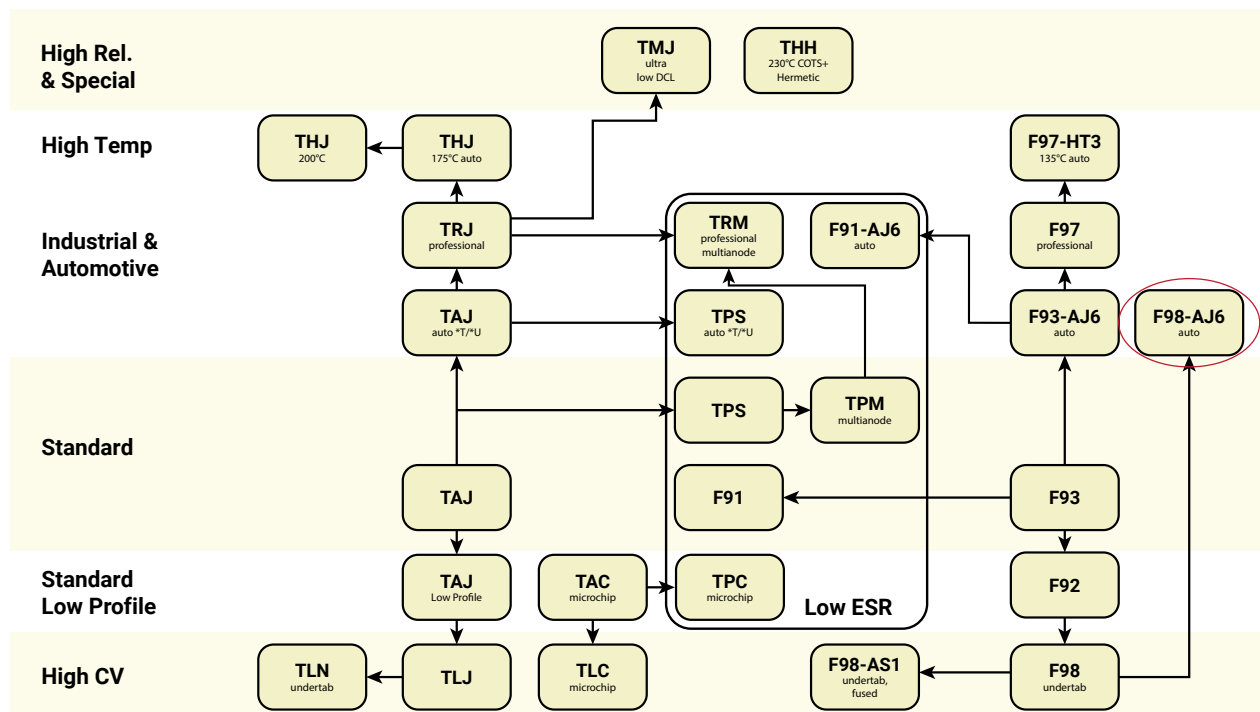
AVX SOLID ELECTROLYTIC CAPACITOR ROADMAP



FIVE CAPACITOR CONSTRUCTION STYLES



SERIES LINE UP : CONVENTIONAL SMD MnO_2



Mouser Electronics

Authorized Distributor

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[F981A106MMAAJ6](#) [F981A106MMUAJ6](#) [F981A475MMAAJ6](#) [F981A475MMUAJ6](#) [F981C106MSAAJ6](#)
[F981C106MSUAJ6](#) [F981C475MMAAJ6](#) [F981C475MMUAJ6](#)