

Material Declaration



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|------------------|-------------|
| Package Type | 5 x 7 |
| Package Size | 5 x 7 mm |
| Terminal Finish | Gold |
| Finish Thickness | 0.5 microns |
| Weight (mg) | 166.000 |
| MSL | 1 |

| | |
|--------|-------|
| Series | CPPV7 |
|--------|-------|

| Item | Material | Element | Content (mg) | Content (wt%) | CAS # | |
|--------------|----------------|--|----------------------------|-----------------|------------|------------|
| Cover | Kovar | Nickel (Ni) | 7.048 | 4.246% | 7440-02-0 | |
| | | Cobalt (Co) | 4.103 | 2.472% | 7440-48-4 | |
| | | Iron (Fe) | 13.180 | 7.940% | 7439-89-6 | |
| | Plating | Nickel (Ni) | 1.009 | 0.608% | 7440-02-0 | |
| Base | Ceramic | Alumina (Al ₂ O ₃) | 79.996 | 48.190% | 1344-28-1 | |
| | | Silicon Dioxide (SiO ₂) | 3.175 | 1.912% | 7631-86-9 | |
| | | Chromium Oxide (Cr ₂ O ₃) | 3.415 | 2.057% | 1308-38-9 | |
| | | Titanium Oxide (TiO ₂) | 0.882 | 0.532% | 13463-67-7 | |
| | | Calcium Oxide (CaO) | 0.298 | 0.180% | 1305-79-9 | |
| | | Magnesium Oxide (MgO) | 0.447 | 0.269% | 1309-48-4 | |
| | | Molybdenum (Mo) | 0.493 | 0.297% | 7439-98-7 | |
| | | Metallization | Tungsten (W) | 15.816 | 9.528% | 7440-33-7 |
| | Nickel Plating | Nickel (Ni) | 2.040 | 1.229% | 7440-02-0 | |
| | | Cobalt (Co) | 0.516 | 0.311% | 7440-48-4 | |
| | Gold Plating | Gold (Au) | 0.711 | 0.428% | 7440-57-5 | |
| | Seal ring | Iron (Fe) | 12.836 | 7.733% | 7439-89-6 | |
| | | Nickel (Ni) | 6.899 | 4.156% | 7440-02-0 | |
| | Silver solder | Cobalt (Co) | 4.046 | 2.437% | 7440-48-4 | |
| | | Silver (Ag) | 3.014 | 1.816% | 7440-22-4 | |
| IC | IC | Copper (Cu) | 0.527 | 0.318% | 7440-50-8 | |
| | | Aluminum (Al) | 0.003 | 0.002% | 7429-90-5 | |
| | | Titanium (Ti) | 0.001 | 0.001% | 7440-32-6 | |
| | | Silicon (Si) | 1.215 | 0.732% | 7440-21-3 | |
| | Gold Wire | Gold (Au) | 0.329 | 0.198% | 7440-57-5 | |
| | Adhesive | Silver (Ag) | 0.0002 | 0.00013% | 7440-22-4 | |
| | | Epoxy | 0.0001 | 0.00004% | | |
| | Capacitor 1 | Body | Nickel (Ni) | 0.010 | 0.006% | 7440-02-0 |
| | | | BaTiO ₃ | 0.830 | 0.500% | 12047-27-7 |
| | | | Nickel (Ni) | 0.013 | 0.008% | 7440-02-0 |
| Termination | | Tin (Sn) | 0.019 | 0.011% | 7440-31-5 | |
| | | Copper (Cu) | 0.025 | 0.015% | 7440-50-8 | |
| Capacitor 2 | Body | Nickel (Ni) | 0.010 | 0.006% | 7440-02-0 | |
| | | BaTiO ₃ | 0.830 | 0.500% | 12047-27-7 | |
| | | Nickel (Ni) | 0.013 | 0.008% | 7440-02-0 | |
| | Termination | Tin (Sn) | 0.019 | 0.011% | 7440-31-5 | |
| | | Copper (Cu) | 0.025 | 0.015% | 7440-50-8 | |
| Resistor | Body | Aluminum Oxide (Al ₂ O ₃) | 0.849 | 0.511% | 1344-28-1 | |
| | | Silicon Oxide (SiO ₂) | 0.043 | 0.026% | 7631-86-9 | |
| | | Magnesium Oxide (MgO) | 0.010 | 0.006% | 1309-48-4 | |
| | | Calcium Oxide (CaO) | 0.009 | 0.005% | 1305-78-8 | |
| | | Silver (Ag) | 0.061 | 0.037% | 7440-22-4 | |
| | | Palladium (Pd) | 0.002 | 0.001% | 7440-05-3 | |
| | | Boron Trioxide (B ₂ O ₃) | 0.012 | 0.007% | 1303-86-2 | |
| | | Lead Oxide (PbO) | 0.010 | 0.006% | 1317-36-8 | |
| | | Ruthenium Oxide (RuO ₂) | 0.006 | 0.004% | 12036-10-1 | |
| | | Copper Oxide (Cu ₂ O) | 0.001 | 0.001% | 1317-38-0 | |
| | | Epoxy | 0.037 | 0.022% | 67762-95-2 | |
| | | Termination | Nickel (Ni) | 0.032 | 0.019% | 7440-02-0 |
| | | | Tin (Sn) | 0.058 | 0.035% | 7440-31-5 |
| | Crystal | Crystal | Quartz (SiO ₂) | 1.054 | 0.635% | 14808-60-7 |
| | | Electrode | Silver (Ag) | 0.022 | 0.013% | 7440-22-4 |
| Nickel (Ni) | | | 0.0002 | 0.0001% | 7440-02-0 | |
| Adhesive | | Silver (Ag) | 0.0004 | 0.0003% | 7440-22-4 | |
| | | Silicon (Si) | 0.0001 | 0.0001% | 7440-21-3 | |
| Total | | | 166.000 | 100.000% | | |



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