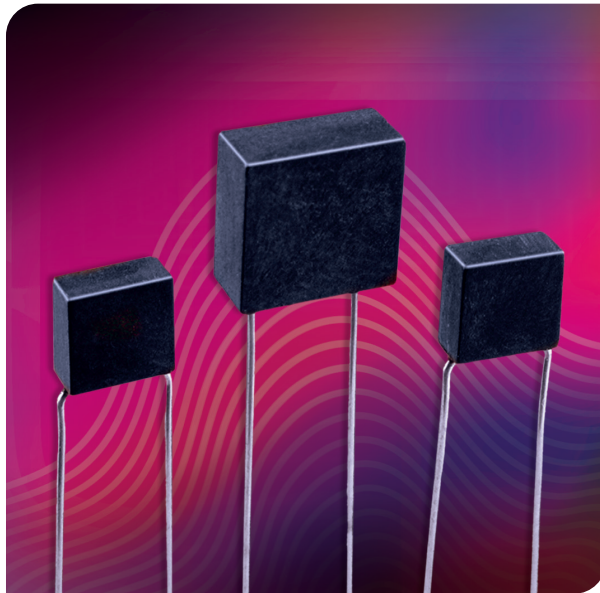


Capacitors

Radial Leaded 200°C Rated



Features:

- For use at Temperature Up to 200°C
- Dielectric Type: NP0, X7R
- Capacitance Range: 200pF-3.9pF
- Rated Working Voltages from 50V to 4KV
- Rugged Premolded Case with Hi-Temp Epoxy Fill
- Compact MLC Designs Utilizing Military Grade Ceramics
- Custom Sizes, Values, and Voltages Available

Common Applications:

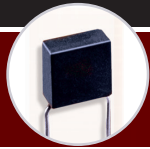
- Oil Well Logging (Down-hole)
- Geophysical Probes
- Jet Engine Controls

| Dielectric | NP0 Dielectric | X7R Dielectric |
|--------------------------------|---|---|
| Temperature Coefficient | 0 ± 30ppm/°C, -55 to 125°C | 0 ± 30ppm/°C, -55 to 125°C |
| Capacitance Droop at 200°C | minus 0.5% max | minus 45% max |
| Dissipation Factor | .001 (0.1%)max, 1Khz, 25°C | .025 (2.5%)max, 1Khz, 25°C |
| Insulation Resistance at 25°C | 1000 ΩF or 100 GΩ, whichever is less @ 25°C, WVDC | 1000 ΩF or 100 GΩ, whichever is less @ 25°C, WVDC |
| Insulation Resistance at 200°C | 1 ΩF or 100 GΩ, whichever is less @ 200°C, WVD | 1 ΩF or 100 GΩ, whichever is less @ 200°C, WVDC |
| For 25-200V Ratings | 2.5 X WVDC, 25°C, 50 mA max | 2.5 X WVDC, 25°C, 50 mA max |
| For 500V Ratings | 1.5 X WVDC, 25°C, 50 mA max | 1.5 X WVDC, 25°C, 50 mA max |
| For 1-4 KV Ratings | 1.2 X WVDC, 25°C, 50 mA max | 1.2 X WVDC, 25°C, 50 mA max |

HOW TO ORDER

| HP | EY | 101 | G | 104 | M | 3 | QA | 001 | B |
|-----------------------------|-----------|---|------------------------|--|---|--|--|---------------|-------------------------------------|
| Subfamily | Size | Voltage | DTC | Capacitance | Tol | Mark | Termination | Special Code | Pack |
| HP = High Temp Radial 200°C | See chart | 500 = 50V 101 = 100V 201 = 200V 501 = 500V 102 = 1KV 202 = 2KV 302 = 3KV 402 = 4KV | G = NP0/COG W = X7R | 1st two digits are significant; 3rd digit denotes number of zeros. 102 = 1000 pF 103 = 0.01 μF 104 = 0.10 μF | NP0 J = ±5% K = ±10% X7R K = ±10% M = ±20% | 3 = Cap Code & Tol Z = Special Code | QA = Blk composite case w/ Radial Wire (Ni/SnPb) | 001 = No mark | B = Bulk C = Non-conductive bags |

Example: **HPEY102G223MZQA001B** Capacitors High-Temperature Radial 200°, 2833, NP0/COG, 1,000.0V, 0.022μF±20%, Black Composite Case w/ Radial Wire (Ni/SnPb), Bulk



Capacitors

Radial Leaded 200°C Rated (Continued)

Capacitance & Voltage Selection

| Code | Size | T | W | G | S | d (Dia.) | Diel | Maximum Capacitance | | | | | | | | |
|------|------|---------|---------|---------|---------|----------|------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | | | 223 | 153 | 902 | 502 | 302 | 152 | 561 | 221 | 560 |
| T2A | in | 0.100 | 0.200 | 0.200 | 0.100 | .020 | NPO | 223 | 153 | 902 | 502 | 302 | 152 | 561 | 221 | 560 |
| | mm | (2.54) | (5.08) | (5.08) | (2.54) | (0.51) | X7R | 334 | 224 | 125 | 563 | 303 | 103 | 262 | 391 | 121 |
| T2B | in | .100 | .200 | .200 | .170 | .020 | NPO | 223 | 153 | 902 | 502 | 302 | 152 | 561 | 221 | 560 |
| | mm | (2.54) | (5.08) | (5.08) | (4.32) | (0.51) | X7R | 334 | 224 | 124 | 563 | 303 | 103 | 262 | 391 | 121 |
| T2C | in | 0.100 | 0.200 | 0.200 | 0.200 | 0.020 | NPO | 223 | 153 | 902 | 52 | 302 | 152 | 561 | 221 | 560 |
| | mm | (2.54) | (5.08) | (5.08) | (5.08) | (0.51) | X7R | 334 | 224 | 124 | 563 | 303 | 103 | 262 | 391 | 121 |
| T3A | in | 0.100 | 0.300 | 0.300 | 0.200 | 0.020 | NPO | 603 | 503 | 283 | 163 | 103 | 682 | 222 | 102 | 301 |
| | mm | (2.54) | (7.62) | (7.62) | (5.08) | (0.51) | X7R | 105 | 105 | 394 | 224 | 104 | 123 | 472 | 102 | 221 |
| T3B | in | 0.150 | 0.300 | 0.300 | 0.200 | 0.020 | NPO | 823 | 623 | 423 | 343 | 203 | 133 | 432 | 222 | 561 |
| | mm | (3.81) | (7.62) | (7.62) | (5.08) | (0.51) | X7R | 563 | 125 | 824 | 464 | 241 | 563 | 203 | 332 | 102 |
| T3C | in | 0.250 | 0.320 | 0.300 | 0.200 | 0.020 | NPO | 823 | 683 | 483 | 373 | 273 | 183 | 822 | 362 | 102 |
| | mm | (6.35) | (8.13) | (7.62) | (5.08) | (0.51) | X7R | 155 | 155 | 94 | 624 | 404 | 124 | 393 | 822 | 822 |
| T3D | in | 0.275 | 0.350 | 0.400 | 0.300 | 0.020 | NPO | 124 | 104 | 803 | 623 | 503 | 333 | 153 | 562 | 152 |
| | mm | (6.99) | (8.89) | (10.16) | (7.62) | (0.51) | X7R | 225 | 225 | 165 | 105 | 724 | 274 | 732 | 153 | 472 |
| T4A | in | 0.250 | 0.420 | 0.400 | 0.300 | 0.025 | NPO | 154 | 124 | 104 | 683 | 563 | 393 | 163 | 103 | 272 |
| | mm | (6.35) | (10.67) | (10.16) | (7.62) | (0.64) | X7R | 335 | 305 | 205 | 125 | 724 | 334 | 753 | 223 | 562 |
| T4B | in | 0.300 | 0.450 | 0.500 | 0.300 | 0.025 | NPO | 224 | 224 | 164 | 124 | 783 | 563 | 293 | 103 | 392 |
| | mm | (7.62) | (11.43) | (12.7) | (7.62) | (0.64) | X7R | 445 | 45 | 305 | 25 | 125 | 564 | 144 | 333 | 103 |
| T5A | in | 0.100 | 0.500 | 0.500 | 0.400 | 0.025 | NPO | 334 | 184 | 14 | 683 | 413 | 273 | 682 | 392 | 152 |
| | mm | (2.54) | (12.7) | (12.7) | (10.16) | (0.64) | X7R | 475 | 405 | 125 | 724 | 404 | 104 | 333 | 822 | 222 |
| T5B | in | 0.150 | 0.500 | 0.500 | 0.400 | 0.025 | NPO | 304 | 254 | 184 | 124 | 803 | 473 | 103 | 822 | 822 |
| | mm | (3.81) | (12.7) | (12.7) | (10.16) | (0.64) | X7R | 555 | 505 | 335 | 155 | 724 | 224 | 683 | 203 | 562 |
| T5C | in | 0.200 | 0.500 | 0.500 | 0.400 | 0.025 | NPO | 304 | 254 | 184 | 144 | 104 | 683 | 223 | 123 | 332 |
| | mm | (5.08) | (12.7) | (12.7) | (10.16) | (0.64) | X7R | 555 | 505 | 275 | 225 | 105 | 394 | 104 | 303 | 103 |
| T5D | in | 0.250 | 0.500 | 0.500 | 0.400 | 0.025 | NPO | 304 | 254 | 184 | 144 | 104 | 823 | 273 | 153 | 392 |
| | mm | (6.35) | (12.7) | (12.7) | (10.16) | (0.64) | X7R | 555 | 505 | 275 | 225 | 105 | 474 | 104 | 223 | 103 |
| T5E | in | 0.300 | 0.520 | 0.500 | 0.400 | 0.025 | NPO | 304 | 254 | 224 | 154 | 104 | 823 | 333 | 153 | 492 |
| | mm | (7.62) | (13.21) | (12.7) | (10.16) | (0.64) | X7R | 555 | 505 | 275 | 225 | 105 | 564 | 154 | 473 | 153 |
| T5F | in | 0.400 | 0.600 | 0.700 | 0.500 | 0.025 | NPO | 424 | 324 | 224 | 184 | 124 | 104 | 563 | 203 | 822 |
| | mm | (10.16) | (15.24) | (17.78) | (12.7) | (0.64) | X7R | 625 | 445 | 405 | 305 | 225 | 105 | 274 | 683 | 222 |
| T6A | in | 0.375 | 0.650 | 0.700 | 0.600 | 0.025 | NPO | 564 | 484 | 334 | 224 | 204 | 154 | 823 | 333 | 153 |
| | mm | (9.53) | (16.51) | (17.78) | (15.24) | (0.64) | X7R | 106 | 805 | 525 | 485 | 305 | 125 | 474 | 124 | 333 |
| T6B | in | 0.300 | 0.620 | 0.500 | 0.500 | 0.025 | NPO | 394 | 304 | 224 | 184 | 124 | 104 | 563 | 223 | 103 |
| | mm | (7.62) | (15.75) | (12.7) | (12.7) | (0.64) | X7R | 705 | 605 | 405 | 305 | 205 | 684 | 274 | 683 | 183 |
| T7A | in | 0.200 | 0.700 | 0.400 | 0.500 | 0.025 | NPO | 334 | 274 | 184 | 154 | 114 | 823 | 333 | 153 | 472 |
| | mm | (5.08) | (17.78) | (10.16) | (12.7) | (0.64) | X7R | 625 | 505 | 335 | 255 | 125 | 474 | 154 | 393 | 103 |
| T7B | in | 0.300 | 0.720 | 0.700 | 0.600 | 0.025 | NPO | 684 | 504 | 404 | 304 | 224 | 184 | 823 | 393 | 183 |
| | mm | (7.62) | (18.29) | (17.78) | (15.24) | (0.64) | X7R | 126 | 106 | 725 | 565 | 335 | 125 | 474 | 124 | 333 |
| T7C | in | 0.375 | 0.750 | 0.800 | 0.700 | 0.025 | NPO | 684 | 564 | 474 | 394 | 294 | 274 | 124 | 473 | 273 |
| | mm | (9.53) | (19.05) | (20.32) | (17.78) | (0.64) | X7R | 156 | 126 | 985 | 625 | 425 | 225 | 684 | 224 | 473 |
| T8A | in | 0.350 | 0.820 | 0.700 | 0.700 | 0.025 | NPO | 624 | 564 | 474 | 374 | 284 | 224 | 124 | 473 | 273 |
| | mm | (8.89) | (20.83) | (17.78) | (17.78) | (0.64) | X7R | 126 | 106 | 825 | 565 | 405 | 225 | 684 | 224 | 473 |