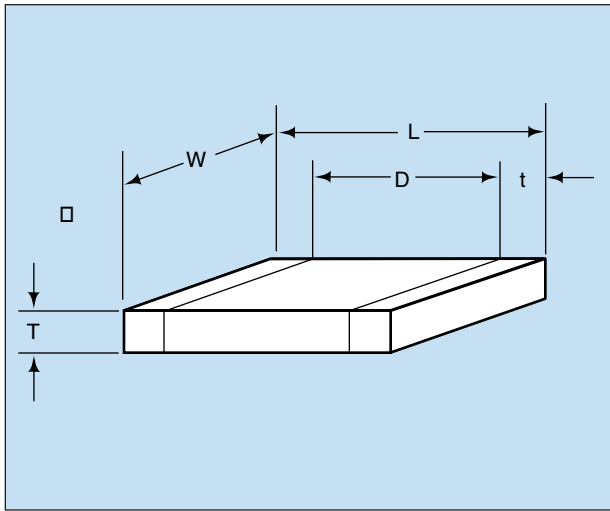


# MIL-PRF-55681/Chips

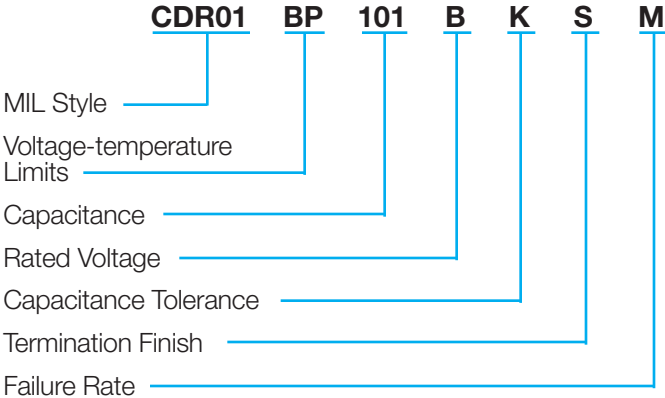


Part Number Example  
CDR01 thru CDR06



## MILITARY DESIGNATION PER MIL-PRF-55681

### Part Number Example



NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

**MIL Style:** CDR01, CDR02, CDR03, CDR04, CDR05, CDR06

### Voltage Temperature Limits:

BP =  $0 \pm 30$  ppm/°C without voltage;  $0 \pm 30$  ppm/°C with rated voltage from -55°C to +125°C

BX =  $\pm 15\%$  without voltage;  $+15 -25\%$  with rated voltage from -55°C to +125°C

**Capacitance:** Two digit figures followed by multiplier (number of zeros to be added) e.g., 101 = 100 pF

**Rated Voltage:** A = 50V, B = 100V

**Capacitance Tolerance:** J  $\pm 5\%$ , K  $\pm 10\%$ , M  $\pm 20\%$

### Termination Finish:

- M = Palladium silver
- N = Silver-nickel-gold
- S = Solder coated final with a minimum of 4 percent lead
- T = Silver
- U = Base metallization-barrier metal-solder coated (tin/lead alloy, with a minimum of 4 percent lead)
- W = Base metallization-barrier metal-tinned (tin or tin/lead alloy)
- Y = Base metallization-barrier metal-tin (100 percent)
- Z = Base metallization-barrier metal-tinned (tin/lead alloy, with a minimum of 4 percent lead)

\*See MIL-PRF-55681 Specification for more details

**Failure Rate Level:** M = 1.0%, P = .1%, R = .01%, S = .001%

**Not RoHS Compliant**

**Packaging:** Bulk is standard packaging. Tape and reel per RS481 is available upon request.

## CROSS REFERENCE: AVX/MIL-PRF-55681/CDR01 THRU CDR06\*

| Per MIL-PRF-55681 | AVX Style | Length (L)              | Width (W)               | Thickness (T) |      | D    |      | Termination Band (t) |      |
|-------------------|-----------|-------------------------|-------------------------|---------------|------|------|------|----------------------|------|
|                   |           |                         |                         | Min.          | Max. | Min. | Max. | Min.                 | Max. |
| CDR01             | 0805      | .080 $\pm$ .015         | .050 $\pm$ .015         | .022          | .055 | .030 | —    | .010                 | —    |
| CDR02             | 1805      | .180 $\pm$ .015         | .050 $\pm$ .015         | .022          | .055 | —    | —    | .010                 | .030 |
| CDR03             | 1808      | .180 $\pm$ .015         | .080 $\pm$ .018         | .022          | .080 | —    | —    | .010                 | .030 |
| CDR04             | 1812      | .180 $\pm$ .015         | .125 $\pm$ .015         | .022          | .080 | —    | —    | .010                 | .030 |
| CDR05             | 1825      | .180 $^{+.020}_{-.015}$ | .250 $^{+.020}_{-.015}$ | .020          | .080 | —    | —    | .010                 | .030 |
| CDR06             | 2225      | .225 $\pm$ .020         | .250 $\pm$ .020         | .020          | .080 | —    | —    | .010                 | .030 |

\*For CDR11, 12, 13, and 14 see AVX Microwave Chip Capacitor Catalog



# MIL-PRF-55681/Chips

## Military Part Number Identification

### CDR01 thru CDR06



#### CDR01 thru CDR06 to MIL-PRF-55681

| Military Type Designation   | Capacitance in pF | Capacitance tolerance | Rated temperature and voltage-temperature limits | WVDC |
|-----------------------------|-------------------|-----------------------|--------------------------------------------------|------|
| <b>AVX Style 0805/CDR01</b> |                   |                       |                                                  |      |
| CDR01BP100B---              | 10                | J,K                   | BP                                               | 100  |
| CDR01BP120B---              | 12                | J                     | BP                                               | 100  |
| CDR01BP150B---              | 15                | J,K                   | BP                                               | 100  |
| CDR01BP180B---              | 18                | J                     | BP                                               | 100  |
| CDR01BP220B---              | 22                | J,K                   | BP                                               | 100  |
| CDR01BP270B---              | 27                | J                     | BP                                               | 100  |
| CDR01BP330B---              | 33                | J,K                   | BP                                               | 100  |
| CDR01BP390B---              | 39                | J                     | BP                                               | 100  |
| CDR01BP470B---              | 47                | J,K                   | BP                                               | 100  |
| CDR01BP560B---              | 56                | J                     | BP                                               | 100  |
| CDR01BP680B---              | 68                | J,K                   | BP                                               | 100  |
| CDR01BP820B---              | 82                | J                     | BP                                               | 100  |
| CDR01BP101B---              | 100               | J,K                   | BP                                               | 100  |
| CDR01B--121B---             | 120               | J,K                   | BP,BX                                            | 100  |
| CDR01B--151B---             | 150               | J,K                   | BP,BX                                            | 100  |
| CDR01B--181B---             | 180               | J,K                   | BP,BX                                            | 100  |
| CDR01BX221B---              | 220               | K,M                   | BX                                               | 100  |
| CDR01BX271B---              | 270               | K                     | BX                                               | 100  |
| CDR01BX331B---              | 330               | K,M                   | BX                                               | 100  |
| CDR01BX391B---              | 390               | K                     | BX                                               | 100  |
| CDR01BX471B---              | 470               | K,M                   | BX                                               | 100  |
| CDR01BX561B---              | 560               | K                     | BX                                               | 100  |
| CDR01BX681B---              | 680               | K,M                   | BX                                               | 100  |
| CDR01BX821B---              | 820               | K                     | BX                                               | 100  |
| CDR01BX102B---              | 1000              | K,M                   | BX                                               | 100  |
| CDR01BX122B---              | 1200              | K                     | BX                                               | 100  |
| CDR01BX152B---              | 1500              | K,M                   | BX                                               | 100  |
| CDR01BX182B---              | 1800              | K                     | BX                                               | 100  |
| CDR01BX222B---              | 2200              | K,M                   | BX                                               | 100  |
| CDR01BX272B---              | 2700              | K                     | BX                                               | 100  |
| CDR01BX332B---              | 3300              | K,M                   | BX                                               | 100  |
| CDR01BX392A---              | 3900              | K                     | BX                                               | 50   |
| CDR01BX472A---              | 4700              | K,M                   | BX                                               | 50   |
| <b>AVX Style 1805/CDR02</b> |                   |                       |                                                  |      |
| CDR02BP221B---              | 220               | J,K                   | BP                                               | 100  |
| CDR02BP271B---              | 270               | J                     | BP                                               | 100  |
| CDR02BX392B---              | 3900              | K                     | BX                                               | 100  |
| CDR02BX472B---              | 4700              | K,M                   | BX                                               | 100  |
| CDR02BX562B---              | 5600              | K                     | BX                                               | 100  |
| CDR02BX682B---              | 6800              | K,M                   | BX                                               | 100  |
| CDR02BX822B---              | 8200              | K                     | BX                                               | 100  |
| CDR02BX103B---              | 10,000            | K,M                   | BX                                               | 100  |
| CDR02BX123A---              | 12,000            | K                     | BX                                               | 50   |
| CDR02BX153A---              | 15,000            | K,M                   | BX                                               | 50   |
| CDR02BX183A---              | 18,000            | K                     | BX                                               | 50   |
| CDR02BX223A---              | 22,000            | K,M                   | BX                                               | 50   |

— Add appropriate failure rate  
 — Add appropriate termination finish  
 — Capacitance Tolerance

| Military Type Designation   | Capacitance in pF | Capacitance tolerance | Rated temperature and voltage-temperature limits | WVDC |
|-----------------------------|-------------------|-----------------------|--------------------------------------------------|------|
| <b>AVX Style 1808/CDR03</b> |                   |                       |                                                  |      |
| CDR03BP331B---              | 330               | J,K                   | BP                                               | 100  |
| CDR03BP391B---              | 390               | J                     | BP                                               | 100  |
| CDR03BP471B---              | 470               | J,K                   | BP                                               | 100  |
| CDR03BP561B---              | 560               | J                     | BP                                               | 100  |
| CDR03BP681B---              | 680               | J,K                   | BP                                               | 100  |
| CDR03BP821B---              | 820               | J                     | BP                                               | 100  |
| CDR03BP102B---              | 1000              | J,K                   | BP                                               | 100  |
| CDR03BX123B---              | 12,000            | K                     | BX                                               | 100  |
| CDR03BX153B---              | 15,000            | K,M                   | BX                                               | 100  |
| CDR03BX183B---              | 18,000            | K                     | BX                                               | 100  |
| CDR03BX223B---              | 22,000            | K,M                   | BX                                               | 100  |
| CDR03BX273B---              | 27,000            | K                     | BX                                               | 100  |
| CDR03BX333B---              | 33,000            | K,M                   | BX                                               | 100  |
| CDR03BX393A---              | 39,000            | K                     | BX                                               | 50   |
| CDR03BX473A---              | 47,000            | K,M                   | BX                                               | 50   |
| CDR03BX563A---              | 56,000            | K                     | BX                                               | 50   |
| CDR03BX683A---              | 68,000            | K,M                   | BX                                               | 50   |
| <b>AVX Style 1812/CDR04</b> |                   |                       |                                                  |      |
| CDR04BP122B---              | 1200              | J                     | BP                                               | 100  |
| CDR04BP152B---              | 1500              | J,K                   | BP                                               | 100  |
| CDR04BP182B---              | 1800              | J                     | BP                                               | 100  |
| CDR04BP222B---              | 2200              | J,K                   | BP                                               | 100  |
| CDR04BP272B---              | 2700              | J                     | BP                                               | 100  |
| CDR04BP332B---              | 3300              | J,K                   | BP                                               | 100  |
| CDR04BX393B---              | 39,000            | K                     | BX                                               | 100  |
| CDR04BX473B---              | 47,000            | K,M                   | BX                                               | 100  |
| CDR04BX563B---              | 56,000            | K                     | BX                                               | 100  |
| CDR04BX823A---              | 82,000            | K                     | BX                                               | 50   |
| CDR04BX104A---              | 100,000           | K,M                   | BX                                               | 50   |
| CDR04BX124A---              | 120,000           | K                     | BX                                               | 50   |
| CDR04BX154A---              | 150,000           | K,M                   | BX                                               | 50   |
| CDR04BX184A---              | 180,000           | K                     | BX                                               | 50   |
| <b>AVX Style 1825/CDR05</b> |                   |                       |                                                  |      |
| CDR05BP392B---              | 3900              | J,K                   | BP                                               | 100  |
| CDR05BP472B---              | 4700              | J,K                   | BP                                               | 100  |
| CDR05BP562B---              | 5600              | J,K                   | BP                                               | 100  |
| CDR05BX683B---              | 68,000            | K,M                   | BX                                               | 100  |
| CDR05BX823B---              | 82,000            | K                     | BX                                               | 100  |
| CDR05BX104B---              | 100,000           | K,M                   | BX                                               | 100  |
| CDR05BX124B---              | 120,000           | K                     | BX                                               | 100  |
| CDR05BX154B---              | 150,000           | K,M                   | BX                                               | 100  |
| CDR05BX224A---              | 220,000           | K,M                   | BX                                               | 50   |
| CDR05BX274A---              | 270,000           | K                     | BX                                               | 50   |
| CDR05BX334A---              | 330,000           | K,M                   | BX                                               | 50   |
| <b>AVX Style 2225/CDR06</b> |                   |                       |                                                  |      |
| CDR06BP682B---              | 6800              | J,K                   | BP                                               | 100  |
| CDR06BP822B---              | 8200              | J,K                   | BP                                               | 100  |
| CDR06BP103B---              | 10,000            | J,K                   | BP                                               | 100  |
| CDR06BX394A---              | 390,000           | K                     | BX                                               | 50   |
| CDR06BX474A---              | 470,000           | K,M                   | BX                                               | 50   |

— Add appropriate failure rate  
 — Add appropriate termination finish  
 — Capacitance Tolerance