



## QUALIFIED FOR CDR11 & CDR12 'S' LEVEL

Also approved for  
DSCC DWG 06019  
Space Level 0505

### DLA LAND AND MARITIME – VQ SUPPLEMENTAL INFORMATION SHEET FOR ELECTRONIC QPL-55681

[http://www.landandmaritime.dla.mil/Downloads/QPLQML/55681/QPDSIS\\_55681.pdf](http://www.landandmaritime.dla.mil/Downloads/QPLQML/55681/QPDSIS_55681.pdf)

#### SPECIFICATION DETAILS

**DATE: 9/30/2014**

**SPECIFICATION: MIL-PRF-55681**

**CASE SIZE: 0505**

**TITLE: Capacitor, Chip, Multiple Layer, Fixed, Unencapsulated, Ceramic Dielectric**

PART LISTINGS				
GOVERNMENT DESIGNATION	MANUFACTURER'S DESIGNATION OR TYPE NUMBER	TEST OR QUALIFICATION REFERENCE	SPECIFICATION SHEET	SUPPLIER'S NAME
<b>CDR11</b>				
.1 pF thru 1000 pF; tols. B, C, D, F, G, J, K, M; in 50, 100, 150 volts; BG, BP rated temp. and volt. temp. limits; term. N; life failure rate M, P, R, S	100A (0.1-100pF), 700A (110-1000pF), 710A (0.1-100pF)	55681-3872-13; 55681-72-95	/4	Vendor A
.1 pF thru 1000 pF; tols. B, C, D, F, G, J, K, M; in 50 volts; BG, BP rated temp. and volt. temp. limits; term. M, N; life failure rate M, P, R, S	AQ11	55681-850-85	/4	Vendor B
.1 pF thru 1000 pF; tols. B, C, D, F, G, J, K, M; in 50, 100, 150 volts; BG, BP rated temp. and volt. temp. limits; term. M, N; life failure rate M, P, R, S	HR0505	55681-709-03	/4	Presidio Components, Inc.
<b>CDR12</b>				
.1 pF thru 1000 pF; tols. B, C, D, F, G, J, K, M; in 50, 100, 150 volts; BG, BP rated temp. and volt. temp. limits; term. S, U, W; life failure rate M, P, R, S	100A (0.1-100pF), 700A (110-1000pF), 710A (0.1-100pF)	55681-3873-13; 55681-3874-13; 55681-3875-13; 55681-72-95	/4	Vendor A
.1 pF thru 1000 pF; tols. B, C, D, F, G, J, K, M; in 50 volts; BG, BP rated temp. and volt. temp. limits; term. S, U, W, Y, Z; life failure rate M, P, R, S	AQ12	55681-850-85	/4	Vendor B
.1 pF thru 1000 pF; tols. B, C, D, F, G, J, K, M; in 50, 100, 150 volts; BG, BP rated temp. and volt. temp. limits; term. M, S, U, W, Z; life failure rate M, P, R, S	HR0505	55681-709-03	/4	Presidio Components, Inc.

Other sizes, voltages, and dielectrics available. Check our website by clicking on:  
<http://www.presidiocomponents.com/products/Ultra-Porcelain-Ceramic-CDR11-12.html>

**REV. A**



# MILITARY SPECIFICATION PART NUMBERS CDR11 AND CDR12 – MIL-PRF-55681

## CAPACITOR CHARACTERISTICS – SIZE 0505

Type Designation	Capacitance (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-B-0R1-B --	0.1	B	BG, BP	50, 150
CDR1-B-0R2-B --	0.2	B	BG, BP	50, 150
CDR1-B-0R3 - - - -	0.3	B, C	BG, BP	50, 150
CDR1-B-0R4 - - - -	0.4	B, C	BG, BP	50, 150
CDR1-B-0R5 - - - -	0.5	B, C, D	BG, BP	50, 150
CDR1-B-0R6 - - - -	0.6	B, C, D	BG, BP	50, 150
CDR1-B-0R7 - - - -	0.7	B, C, D	BG, BP	50, 150
CDR1-B-0R8 - - - -	0.8	B, C, D	BG, BP	50, 150
CDR1-B-0R9 - - - -	0.9	B, C, D	BG, BP	50, 150
CDR1-B-1R0 - - - -	1	B, C, D	BG, BP	50, 150
CDR1-B-1R1 - - - -	1.1	B, C, D	BG, BP	50, 150
CDR1-B-1R2 - - - -	1.2	B, C, D	BG, BP	50, 150
CDR1-B-1R3 - - - -	1.3	B, C, D	BC, BP	50, 150
CDR1-B-1R4 - - - -	1.4	B, C, D	BG, BP	50, 150
CDR1-B-1R5 - - - -	1.5	B, C, D	BG, BP	50, 150
CDR1-B-1R6 - - - -	1.6	B, C, D	BG, BP	50, 150
CDR1-B-1R7 - - - -	1.7	B, C, D	BG, BP	50, 150
CDR1-B-1R8 - - - -	1.8	B, C, D	BG, BP	50, 150
CDR1-B-1R9 - - - -	1.9	B, C, D	BG, BP	50, 150
CDR1-B-2R0 - - - -	2	B, C, D	BG, BP	50, 150
CDR1-B-2R1 - - - -	2.1	B, C, D	BG, BP	50, 150
CDR1-B-2R2 - - - -	2.2	B, C, D	BG, BP	50, 150
CDR1-B-2R4 - - - -	2.4	B, C, D	BG, BP	50, 150
CDR1-B-2R7 - - - -	2.7	B, C, D	BG, BP	50, 150
CDR1-B-3R0 - - - -	3	B, C, D	BC, BP	50, 150
CDR1-B-3R3 - - - -	3.3	B, C, D	BG, BP	50, 150
CDR1-B-3R6 - - - -	3.6	B, C, D	BG, BP	50, 150
CDR1-B-3R9 - - - -	3.9	B, C, D	BG, BP	50, 150
CDR1-B-4R3 - - - -	4.3	8, C, D	BG, BP	50, 150
CDR1-B-4R7 - - - -	4.7	B, C, D	BG, BP	50, 150
CDR1-B-5R1 - - - -	5.1	B, C, D	BG, BP	50, 150
CDR1-B-5R6 - - - -	5.6	B, C, D	BG, BP	50, 150
CDR1-B-6R2 - - - -	6.2	B, C, D	BG, BP	50, 150
CDR1-B-6R8 - - - -	6.8	B, C, J, K, M	BC, BP	50, 150
CDR1-B-7R5 - - - -	7.5	B, C, J, K, M	BG, BP	50, 150
CDR1-B-8R2 - - - -	8.2	B, C, J, K, M	BG, BP	50, 150
CDR1-B-9R1 - - - -	9.1	B, C, J, K, M	BG, BP	50, 150
CDR1-B-100 - - - -	10	F, G, J, K, M	BG, BP	50, 150
CDR1-B-110 - - - -	11	F, G, J, K, M	BG, BP	50, 150
CDR1-B-120 - - - -	12	F, G, J, K, M	BG, BP	50, 150
CDR1-B-130 - - - -	13	F, G, J, K, M	BG, BP	50, 150
CDR1-B-150 - - - -	15	F, G, J, K, M	BG, BP	50, 150
CDR1-B-160 - - - -	16	F, G, J, K, M	BG, BP	50, 150

Type Designation	Capacitance (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-B-180 - - - -	18	F, G, J, K, M	BG, BP	50, 150
CDR1-B-200 - - - -	20	F, G, J, K, M	BG, BP	50, 150
CDR1-B-220 - - - -	22	F, G, J, K, M	BG, BP	50, 150
CDR1-B-240 - - - -	24	F, G, J, K, M	BG, BP	50, 150
CDR1-B-270 - - - -	27	F, G, J, K, M	BG, BP	50, 150
CDR1-B-300 - - - -	30	F, G, J, K, M	BG, BP	50, 150
CDR1-B-330 - - - -	33	F, G, J, K, M	BG, BP	50, 150
CDR1-B-360 - - - -	36	F, G, J, K, M	BG, BP	50, 150
CDR1-B-390 - - - -	39	F, G, J, K, M	BG, BP	50, 150
CDR1-B-430 - - - -	43	F, G, J, K, M	BG, BP	50, 150
CDR1-B-470 - - - -	47	F, G, J, K, M	BG, BP	50, 150
CDR1-B-510 - - - -	51	F, G, J, K, M	BG, BP	50, 150
CDR1-B-560 - - - -	56	F, G, J, K, M	BG, BP	50, 150
CDR1-B-620 - - - -	62	F, G, J, K, M	BG, BP	50, 150
CDR1-B-680 - - - -	68	F, G, J, K, M	BG, BP	50, 150
CDR1-B-750 - - - -	75	F, G, J, K, M	BG, BP	50, 150
CDR1-B-820 - - - -	82	F, G, J, K, M	BG, BP	50, 150
CDR1-B-910 - - - -	91	F, G, J, K, M	BG, BP	50, 150
CDR1-B-101 - - - -	100	F, G, J, K, M	BG, BP	50, 150
CDR1-BP111A - - -	110	F, G, J, K, M	BP	50, 100
CDR1-BP121A - - -	120	F, G, J, K, M	BP	50, 100
CDR1-BP131A - - -	130	F, G, J, K, M	BP	50, 100
CDR1-BP151A - - -	150	F, G, J, K, M	BP	50, 100
CDR1-BP161A - - -	160	F, G, J, K, M	BP	50, 100
CDR1-BP181A - - -	180	F, G, J, K, M	BP	50, 100
CDR1-BP201A - - -	200	F, G, J, K, M	BP	50, 100
CDR1-BP221A - - -	220	F, G, J, K, M	BP	50, 100
CDR1-BP241A - - -	240	F, G, J, K, M	BP	50, 100
CDR1-BP271A - - -	270	F, G, J, K, M	BP	50, 100
CDR1-BP301A - - -	300	F, G, J, K, M	BP	50, 100
CDR1-BP331A - - -	330	F, G, J, K, M	BP	50, 100
CDR1-BP361A - - -	360	F, G, J, K, M	BP	50, 100
CDR1-BP391A - - -	390	F, G, J, K, M	BP	50, 100
CDR1-BP431A - - -	430	F, G, J, K, M	BP	50, 100
CDR1-BP471A - - -	470	F, G, J, K, M	BP	50, 100
CDR1-BP511A - - -	510	F, G, J, K, M	BP	50, 100
CDR1-BP561A - - -	560	F, G, J, K, M	BP	50, 100
CDR1-BP621A - - -	620	F, G, J, K, M	BP	50, 100
CDR1-BP681A - - -	680	F, G, J, K, M	BP	50, 100
CDR1-BP751A - - -	750	F, G, J, K, M	BP	50, 100
CDR1-BP821A - - -	820	F, G, J, K, M	BP	50, 100
CDR1-BP911A - - -	910	F, G, J, K, M	BP	50, 100
CDR1-BP102A - - -	1,000	F, G, J, K, M	BP	50, 100

## HOW TO ORDER

CDR11		BG	101	A	C	M		S
Mil Style	Voltage Temperature Limits	Capacitance	Rated Voltage Code	Cap Tolerance Code	Termination Finish		Failure Rate Level	
<b>CDR11</b> <b>CDR12</b>	BG = 90 ± 20 ppm / °C	3 Digit EIA Code	A = 50V	B = ± .10 pF	M = Palladium/Silver N = Silver-Nickel-Gold	CDR11 Only	M = 1.0%	
	BP = 0 ± 30 ppm / °C		B = 100V	C = ± .25 pF				
<b>Size 0505</b>			K = 150V	D = ± .50 pF	S = Solder Coated, Final with a Minimum of 4% Lead U = Base Metalization, Barrier Metal, Solder Coated (Tin/Lead Alloy with a Minimum of 4% Lead) W = Base Metalization, Barrier Metal, Tinned (Tin or Tin/Lead Alloy) Z = Base Metalization, Barrier Metal, Tinned (Tin/Lead Alloy with Minimum of 4% Lead)	CDR12 Only	P = 0.1%	
				F = ± 1%			R = 0.01%	S = 0.001%
				G = ± 2%				
				J = ± 5%				
				K = ± 10%				
				M = ± 20%				

## DIMENSIONS – CDR11 AND CDR12 CAPACITORS

Style Per MIL-C-55681	Length (L) Inches (mm)	Width (W) Inches (mm)	Thickness (T) Min Inches (mm)	Thickness (T) Max Inches (mm)	Termination Band (Y) Inches (mm)
<b>CDR11</b>	.055 ± .015 (1.40 ± .381)	.055 ± .015 (1.40 ± .381)	.020 (.508)	.057 (1.45)	.010 - .005 + .010 (.254 - .127 + .254)
<b>CDR12</b>	.055 ± .025 (1.40 ± .635)	.055 ± .015 (1.40 ± .381)	.020 (.508)	.057 (1.45)	.010 - .005 + .010 (.254 - .127 + .254)

CDR13 is partially qualified to 'S' Level.  
Consult factory for current qualification status for CDR13 and CDR14.