

PERFORMANCE SPECIFICATION SHEET
CAPACITORS, CHIP, FIXED, TANTALUM, POLARIZED
ESTABLISHED RELIABILITY AND NONESTABLISHED RELIABILITY,
STYLE CWR15

This specification sheet is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein
shall consist of this specification sheet and [MIL-PRF-55365](#).

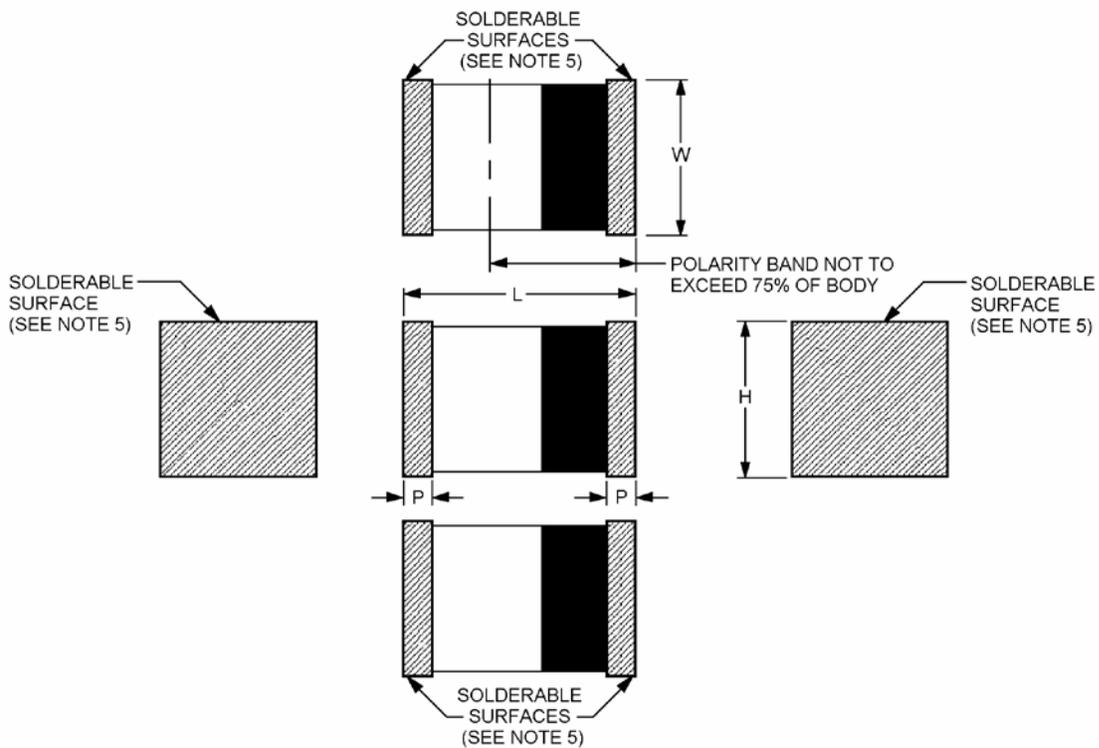


FIGURE 1. Dimensions and configuration.

MIL-PRF-55365/12F

Case size	L + .010 (0.25) - .006 (0.15)	W + .008 (0.20) - .004 (0.10)	H + .008 (0.20) - .004 (0.10)	P + .014 (0.35) - .000 (0.0)
L	.063 (1.60)	.033 (0.84)	.033 (0.84)	.006 (0.15)
R	.079 (2.01)	.053 (1.35)	.053 (1.35)	.006 (0.15)
Case size	L ± .008 (0.20)	W ± .008 (0.20)	H ± .008 (0.20)	P + .014 (0.35) - .000 (0.0)
A	.126 (3.20)	.063 (1.60)	.063 (1.60)	.006 (0.15)
F	.158(4.01)	.116(2.95)	.050(1.27)	.010(0.25)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parentheses and given for general information only.
3. These capacitors are designed for mounting by dip soldering, reflow soldering, or other conventional means.
4. The anode (+) terminal shall be identified by a marking on all four sides or laser marking on one side of the case.
5. Solderable surfaces are only those surfaces designated as such. Termination edges are not considered solderable.

FIGURE 1. Dimensions and configuration - Continued.

REQUIREMENTS:

Dimensions and configuration: See [figure 1](#).

Termination finish: Termination finishes B, H, or K in accordance with [MIL-PRF-55365](#).

DC rated voltage: See [table I](#). Above +85°C, voltage derating is required (see [MIL-PRF-55365](#)).

Operating temperature range: -55°C to +125°C.

Product level designator: In accordance with [MIL-PRF-55365](#) except the Weibull Failure Rate Level grading failure count during and after test shall be determined by DC leakage measurements of .045 X CV or 0.5µA whichever is greater.

DC leakage (DCL): See [table I](#).

Capacitance: See [table I](#).

Capacitance tolerance: ±5 percent (J), ±10 percent (K), or ±20 percent (M).

Dissipation factor (DF): See [table I](#).

Equivalent series resistance (ESR) at 100 kHz: In accordance with [MIL-PRF-55365](#) (see [table I](#)).

Resistance to soldering heat: In accordance with [MIL-PRF-55365](#).

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Stability at low and high temperatures: In accordance with [MIL-PRF-55365](#).

Surge voltage: In accordance with [MIL-PRF-55365](#).

Life:

2,000 hours: In accordance with [MIL-PRF-55365](#).

10,000 hours: In accordance with [MIL-PRF-55365](#).

Solderability: In accordance with [MIL-PRF-55365](#) except that following steam aging, test samples may have a 30 minute bake out at +150°C prior to solder dipping and all terminations shall exhibit a continuous solder coating free from defects for a minimum of 75 percent of the critical area of any individual termination.

TABLE I. Style CWR15 characteristics.

Part or identifying number (PIN) 1/	DC rated voltage (+85°C) (Volts)	Cap. (nom) (µF)	DC Leakage (max) (µA)			Dissipation factor (max) (percent)			Max ESR 100 kHz +25°C (Ohms)	Case size
			+25°C	+85°C	+125°C	+25°C	+85°C +125°C	-55°C		
CWR15CK685--L-	4	6.8	.5	5	6	8	16	12	10	L
CWR15CK106--R-	4	10	.5	5	6	8	16	12	6	R
CWR15CK156--R-	4	15	.6	6	7	8	16	12	6	R
CWR15CK226--R-	4	22	.9	9	11	8	16	12	6	R
CWR15CK336--R-	4	33	1.3	13	16	10	20	15	6	R
CWR15CK686--A-	4	68	2.7	27	33	15	30	23	1	A
CWR15DK335--L	6	3.3	.5	5	6	6	12	9	10	L
CWR15DK475--L-	6	4.7	.5	5	6	8	16	12	10	L
CWR15DK685--R-	6	6.8	.5	5	6	8	16	12	6	R
CWR15DK106--R-	6	10	.6	6	7	8	16	12	6	R
CWR15DK156--R-	6	15	.9	9	11	8	16	12	6	R
CWR15DK226--A-	6	22	1.4	14	17	10	20	15	6	A
CWR15DK336--A-	6	33	2.0	20	24	10	20	15	6	A
CWR15DK476--A-	6	47	2.8	28	34	15	30	23	4	A
CWR15FK474--L-	10	0.47	.5	5	6	6	12	9	12	L
CWR15FK684--L-	10	0.68	.5	5	6	6	12	9	10	L
CWR15FK105--L-	10	1.0	.5	5	6	6	12	9	10	L
CWR15FK155--L-	10	1.5	.5	5	6	6	12	9	10	L
CWR15FK225--L-	10	2.2	.5	5	6	6	12	9	10	L
CWR15FK335--R-	10	3.3	.5	5	6	8	16	12	6	R
CWR15FK475--R-	10	4.7	.5	5	6	8	16	12	6	R
CWR15FK685--R-	10	6.8	.7	7	8.5	8	16	12	6	R
CWR15FK106--R-	10	10	1.0	10	12	8	16	12	6	R
CWR15FK156--A-	10	15	1.5	15	18	10	20	15	6	A

[See footnotes at end of table.](#)

TABLE I. Style CWR15 characteristics - Continued.

Part or identifying number (PIN) ^{1/}	DC rated voltage (+85°C) (Volts)	Cap. (nom) (μF)	DC Leakage (max) (μA)			Dissipation factor (max) (percent)			Max ESR 100 kHz +25°C (Ohms)	Case size
			+25°C	+85°C	+125°C	+25°C	+85°C	+125°C		
CWR15HK475--R-	15	4.7	1.0	10	12	8	16	12	12	R
CWR15HK106--A-	15	10	1.5	15	18	10	20	15	12	A
CWR15JK474--L-	20	.47	.5	5	6	6	12	9	24	L
CWR15JK335--R-	20	3.3	.5	5	6	8	16	12	18	R
CWR15KK334--L-	25	.33	.5	5	6	6	12	9	30	L

^{1/} Complete PIN shall include additional symbols to indicate capacitance tolerance, product level designator, and surge current option letter. If surge current is not required, the last "-" shall be replaced with the letter Z.

^{2/} The following PINs are no longer available: CWR15CK107--F, CWR15DK686--F, CWR15FK336--F, CWR15HK105--L, CWR15HK156--F, CWR15JK685--A, CWR15JK106--F, CWR15KK155--R, CWR15KK335--A, CWR15KK475--F, CWR15MK224--L, CWR15MK474--R, CWR15MK105--A, CWR15MK225--F, CWR15NK104--L, CWR15NK334--R, CWR15NK155--F, CWR15NK684--A. For historical information, use the ASSIST Online database at <https://assist.dla.mil>.

Changes from previous issue: The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue."

Custodians:
 Army - CR
 Navy - EC
 Air Force - 85
 DLA - CC
 NASA - NA

Preparing activity:
 Army - CR

Agent:
 DLA - CC

(Project 5910-2012-016)

Review activities:
 Army - AR, MI
 Navy - AS, MC, OS, SH
 Air Force - 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.