

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

This specification 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 and MIL-PRF-55365.

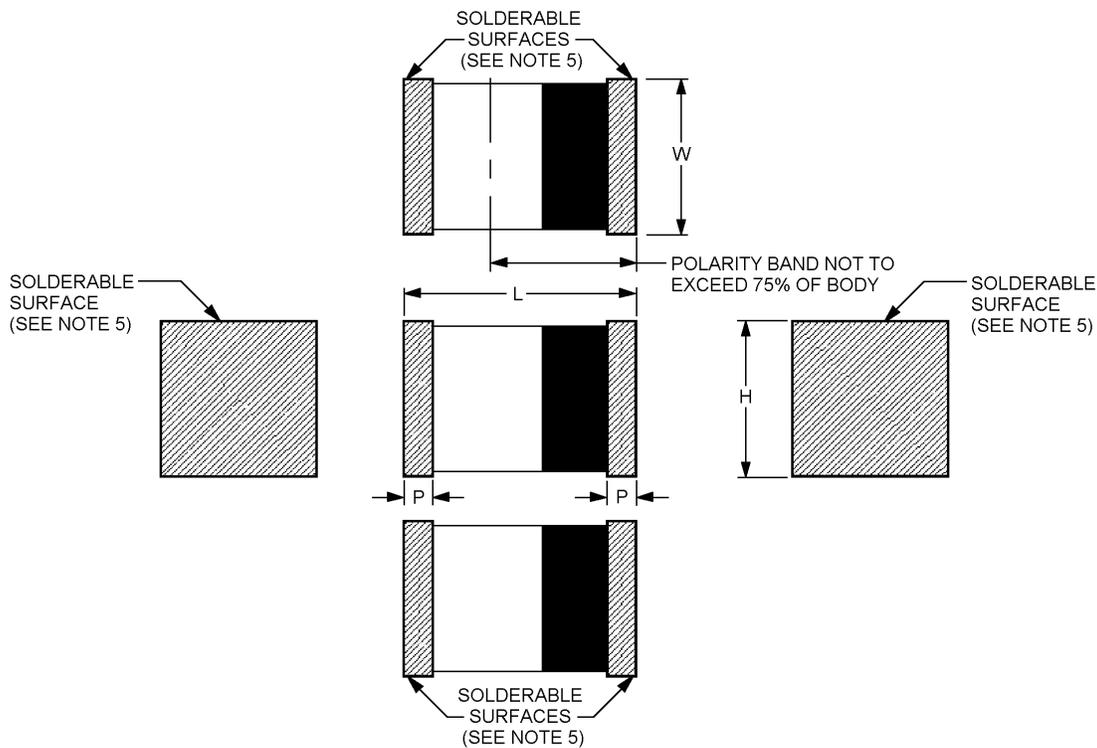


FIGURE 1. Style CWR15 capacitors.

MIL-PRF-55365/12

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 (0.85)	.033 (0.85)	.006 (0.15)
R	.079 (2.00)	.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)

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, thermo-compression bonding, reflow soldering, or other conventional means.
4. The anode (+) terminal shall be identified by a marking on all four sides of the case.
5. Solderable surfaces are only those surfaces designated as such. Termination edges are not considered solderable.

FIGURE 1. Style CWR15 capacitors - Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Termination finish: Termination finish 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.

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.

Step 1 (+25°C):	DCL Capacitance DF	- See table I. - Shall not exceed tolerance of table I value. - See table I.
Step 2 (-55°C):	Δ Capacitance DF	- Shall not exceed ±10 percent of initial measurement. - See table I.
Step 3 (+25°C):	DCL Δ Capacitance DF	- See table I. - Shall not exceed ±5 percent of initial +25°C measurement. - See table I.
Step 4 (+85°C):	DCL Δ Capacitance DF	- See table I. - Shall not exceed ±10 percent of initial +25°C measurement. - See table I.
Step 5 (+125°C):	DCL Δ Capacitance DF	- See table I. - Shall not exceed ±15 percent of initial +25°C measurement. - See table I.
Step 6 (+25°C):	DCL Δ Capacitance DF	- See table I. - Shall not exceed ±5 percent of initial +25°C measurement. - See table I.

Surge voltage: In accordance with MIL-PRF-55365.

DCL	- See table I.
Δ Capacitance	- Within ±5 percent of initial value.
DF	- See table I.

Life: Method 108 of MIL-STD-202.

2,000 hours:

At 25°C:	DCL Δ Capacitance DF	- See table I. - Shall not exceed ±5 percent of initial measured value. - See table I.
At 85°C:	DCL	- See table I.
At 125°C:	DCL	- See table I.

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
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
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	10	1.5	15	18	10	20	15	6	A

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.

## Custodians:

Army - CR  
Navy - EC  
Air Force - 11  
NASA - NA  
DLC - CC

## Preparing activity:

Army - CR

## Agent:

DLA - CC

(Project 5910-2234)

## Review activities:

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

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