

MILITARY SPECIFICATION SHEET

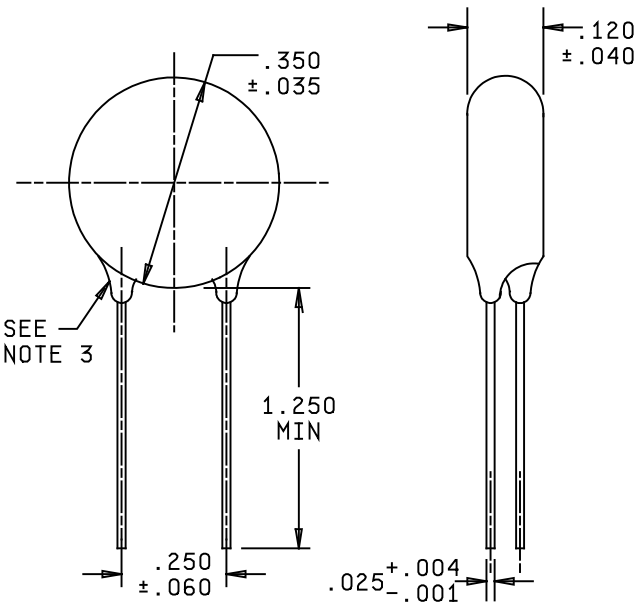
CAPACITORS, FIXED, CERAMIC DIELECTRIC (GENERAL PURPOSE),

STYLE CK61

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-C-11015](#).

INACTIVE FOR NEW DESIGN AFTER 31 MARCH 1999.
FOR REPLACEMENT PURPOSES ONLY.



- NOTES:
- 1. Dimensions are in inches.
 - 2. Metric equivalents are given for general information only.
 - 3. Insulating coating shall not extend more than .125 inch (3.18 mm) along lead wires measured from a tangent to the coating surface drawn perpendicular to the lead wires.

Inches	mm
.001	0.03
.004	0.10
.025	0.64
.035	0.89
.040	1.02
.060	1.52
.120	3.05
.250	6.35
.350	8.89
1.250	31.75

FIGURE 1. Dimensions and configuration.

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TABLE I. Style CK61 characteristics.

Part or Identifying Number (PIN) <u>1/</u>	Rated Voltage (Volts, dc)	Rated temperature and voltage-temperature limits	Capacitance (pF)	Capacitance tolerance
CK61CZ2R2--	500	CZ	2.2	K, M
CK61CZ3R3--	500	CZ	3.3	K, M
CK61CZ4R7--	500	CZ	4.7	K, M
CK61CZ6R8--	500	CZ	6.8	K, M
CK61CZ100--	500	CZ	10	K, M
CK61CZ150--	500	CZ	15	K, M
CK61CZ220--	500	CZ	22	K, M
CK61CZ330--	500	CZ	33	K, M
CK61CZ470--	500	CZ	47	K, M
CK61CZ680--	500	CZ	68	K, M
CK61CZ101--	500	CZ	100	K, M
CK61CZ151--	500	CZ	150	K, M
CK61BX221--	500	BX	220	K, M
CK61CZ221--	500	CZ	220	K, M
CK61BX331--	500	BX	330	K, M
CK61CZ331--	500	CZ	330	K, M
CK61BX471--	500	BX	470	K, M
CK61CZ471--	500	CZ	470	K, M
CK61BX681--	500	BX	680	K, M
CK61AW222M-	500	AW	2,200	M

1/ Where applicable, the complete PIN will include an additional symbol to indicate capacitance tolerance. The PIN will also include the letter "E" to indicate an epoxy coated capacitor (when applicable) or "-" will be deleted for wax impregnated case.

REQUIREMENTS

Design and construction:

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

Case type: Disk, wax impregnated or epoxy coated (E).

Capacitance value: See [table I](#).

Capacitance tolerance: ± 10 percent (K) or ± 20 percent (M) as shown in [table I](#).

Rated temperature: -55°C to $+85^{\circ}\text{C}$ (A), or -55°C to $+125^{\circ}\text{C}$ (B), or -55°C to $+150^{\circ}\text{C}$ (C), as shown in [table I](#).

Dielectric withstanding voltage(DWV): In accordance with [MIL-C-11015](#).

Dielectric:

Test voltage: 250 percent of rated voltage.

Body insulation:

Test potential: 1,300 volts dc.

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Barometric pressure (reduced): In accordance with [MIL-C-11015](#) and [method 105 of MIL-STD-202](#), .82 inch of mercury (80,000 ft).

Test potential: 150 percent of rated voltage.

Insulation resistance (IR): In accordance with [MIL-C-11015](#) and [method 302 of MIL-STD-202](#), condition B. 200,000 megohms, minimum.

Dissipation factor (DF): 2.0 percent maximum.

Vibration, high frequency: In accordance with [MIL-C-11015](#) and [method 204 of MIL-STD-202](#), condition D (20 g's).

Thermal shock and immersion: In accordance with [MIL-C-11015](#).

DWV: 250 percent of rated voltage.

IR: 150,000 megohms, minimum.

Salt atmosphere (corrosion): Not applicable.

Terminal strength: In accordance with [MIL-C-11015](#).

Moisture resistance: In accordance with [MIL-C-11015](#).

DWV: 250 percent of rated voltage.

IR: 150,000 megohms, minimum.

Cap.: Within tolerance of [table I](#) value.

Solderability: In accordance with [MIL-C-11015](#). 2 terminals.

Resistance to soldering heat: In accordance with [MIL-C-11015](#).

IR: 200,000 megohms, minimum.

Δ Cap.: ± 5 percent of initial measurement.

Δ DF: 0.5 percent, maximum.

Voltage-temperature limits: In accordance with [MIL-C-11015](#).

Life (at elevated ambient temperature): In accordance [MIL-C-11015](#).

Test potential: 200 percent of rated voltage.

DWV: 250 percent of rated voltage. (at +25°C).

IR: 100,000 megohms, minimum (at high temperature and +25°C).

Cap.: Within tolerance of [table I](#) value (at +25°C).

DF: 2.0 percent, maximum.

Marking: In accordance with [MIL-C-11015](#).

Referenced documents: In addition to [MIL-C-11015](#), this specification sheet references the following document:

[MIL-STD-202](#)

Changes from previous issue: The margins of this specification sheet 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 on this document 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

Preparing activity:

DLA - CC

(Project 5910-2013-008)

Review activities:

Army - MI
Navy – AS, 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 can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.