

INCH-POUND

MIL-C-11015/23D  
14 May 2001  
SUPERSEDING  
MIL-C-11015/23C  
2 June 1982

MILITARY SPECIFICATION SHEET

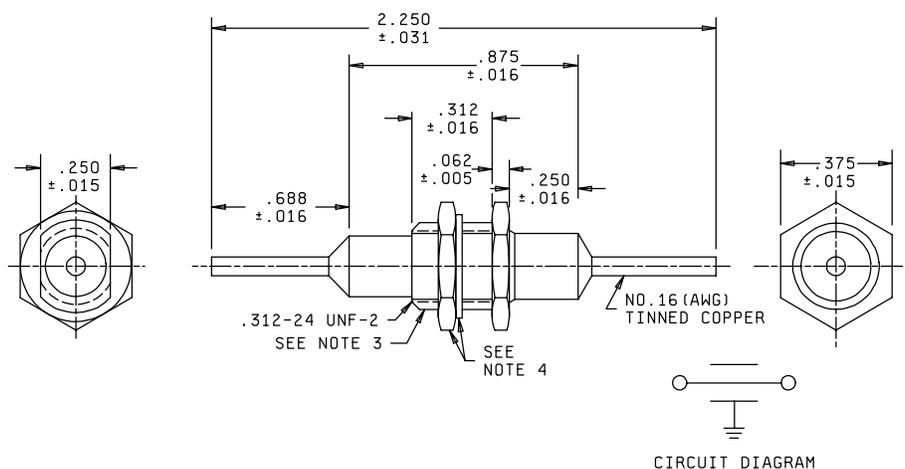
CAPACITORS, FIXED, CERAMIC DIELECTRIC (GENERAL PURPOSE), (FEED-THRU),

STYLE CK72

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-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. The threaded portion shall extend to within .047 (1.19 mm) of the shoulder.
4. A nut and internal-tooth lockwasher shall be supplied with each capacitor when requested by the procuring activity.

Inches	mm
.005	.13
.015	.38
.016	.41
.031	.79
.062	1.57
.250	6.35
.312	7.92
.375	9.53
.688	17.48
.875	22.23
2.250	57.15

FIGURE 1. Dimensions and configuration.

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REQUIREMENTS

Design and construction:

Dimensions and configuration - See figure 1.

Case type - Feed-thru.

Capacitance value - See table I.

Capacitance tolerance -  $\pm 20$  percent (M).

Rated temperature -  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

Dielectric withstanding voltage: In accordance with MIL-C-11015.

Dielectric (DWV):

Test voltage - 250 percent of rated voltage, applied between the case and the terminal.

Body insulation: Not applicable.

Barometric pressure (reduced): In accordance with MIL-C-11015 and method 105 of MIL-STD-202, condition B (50,000 ft).

Test potential - 1,550 volts dc.

Insulation resistance (IR): In accordance with MIL-C-11015 and method 302 of MIL-STD-202, condition B. 500,000 megohms, minimum, measured between either insulated point and capacitor case.

Dissipation factor (DF): 1.2 percent, maximum.

TABLE I. Style CK72 characteristics.

PIN	Rated voltage	Rated temperature and voltage-temperature limits	Capacitance	Capacitance tolerance
	Volts, dc		pF	
CK72AX101M	1,500	AX	100	M
CK72AX471M	1,500	AX	470	M
CK72AX681M	1,500	AX	680	M
CK72AX102M	1,500	AX	1,000	M

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.

IR - 200,000 megohms, minimum.

Terminal strength: Not applicable.

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.

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Solderability: In accordance with MIL-C-11015; 2 terminals.

Life (at elevated ambient temperature): In accordance with MIL-C-11015.

Test potential - 200 percent of rated voltage.

IR - 200,000 megohms, minimum (at 85°C), 300,000 megohms, minimum (at 25°C).

DF - 1.5 percent, maximum (at 25°C).

Marking: The operating temperature range and voltage-temperature limit, capacitance, and capacitance tolerance shall be indicated on the capacitor by color coding as shown on figure 2 and table II. The MIL identifier (yellow spot) shall be applied to the capacitor body diametrically opposite the color spots. At the option of the manufacturer, capacitors may be marked in accordance with MIL-C-11015. In either case, full marking shall appear on the unit package.

TABLE II. Color code.

Color	Operating temperature range and voltage-temperature limits	Nominal capacitance		Capacitance tolerance
		First and second significant figures	Multiplier <u>1/</u>	
Black	---	0	1	M
Brown	---	1	10	---
Red	AX	2	100	---
Orange	---	3	1000	---
Yellow	---	4	---	---
Green	---	5	---	---
Blue	---	6	---	---
Purple (violet)	---	7	---	---
Gray	---	8	---	---
White	---	9	---	---

1/ The multiplier is the factor by which the two significant figures are multiplied to yield the nominal capacitance.

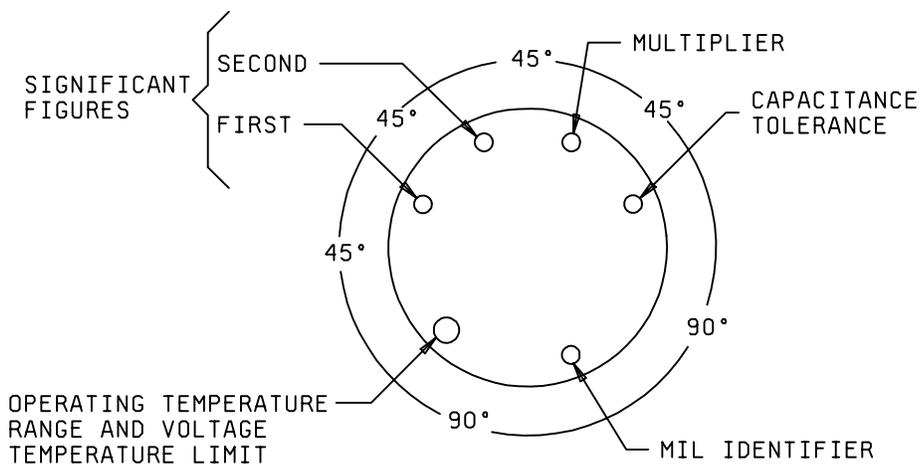


Figure 2. Color code marking.

Changes from previous issue: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:  
Army - CR  
Navy - EC  
Air Force - 11  
DLA - CC

Preparing activity:  
DLA - CC

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

(Project 5910-2069-10)