

PERFORMANCE SPECIFICATION SHEET

CAPACITORS, VARIABLE (PISTON TYPE,  
TUBULAR TRIMMER), STYLES PC27, PC28, PC29

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

The requirements for acquiring the capacitors described herein shall consist  
of this specification sheet and [MIL-PRF-14409](#).

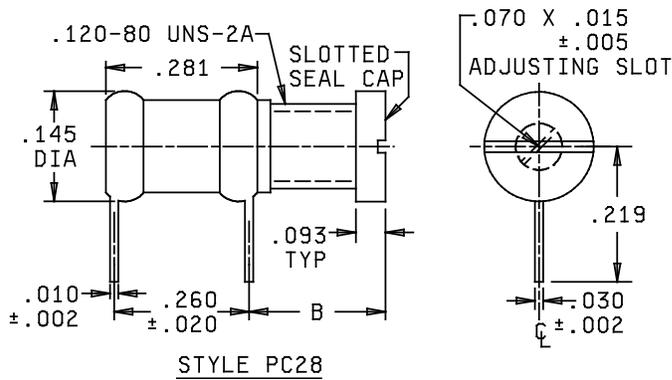
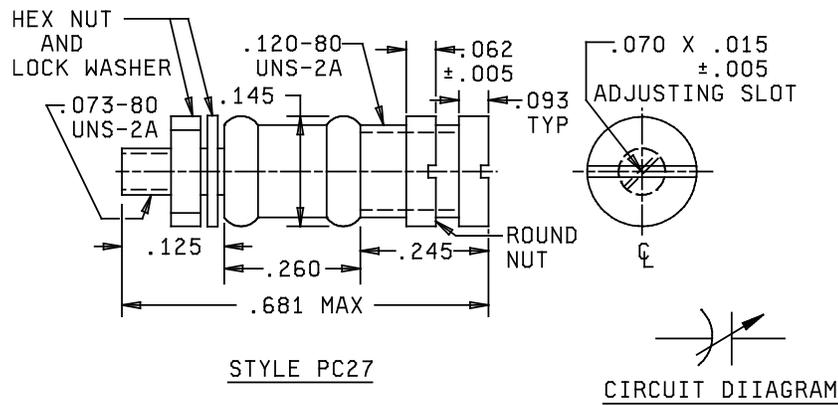
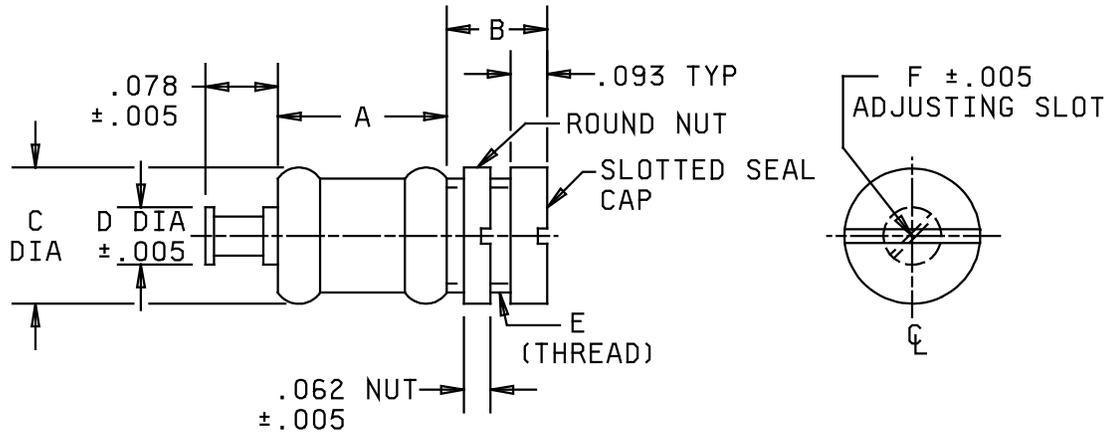


FIGURE 1. Dimensions and configuration.



STYLE PC29

Inches	mm	Inches	mm
.002	0.05	.093	2.36
.005	0.13	.120	3.05
.010	0.25	.125	3.18
.015	0.38	.145	3.68
.020	0.51	.219	5.56
.030	0.76	.245	6.22
.062	1.57	.260	6.63
.070	1.78	.281	7.14
.073	1.85	.681	17.30
.078	1.98		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is  $\pm .016$  inch (0.41 mm).

FIGURE 1. Dimensions and configurations - Continued.

TABLE I. Capacitor characteristics.

Part or Identifying Number (PIN)	Capacitance range		Q Min	Dimensions <sup>1/</sup>					
	Min	Max		A	B ± .020 (0.51)	C	D	E	F
	pF	pF							
PC27J3R5	0.35	3.5	10,000						
PC28J3R5	0.35	3.5	10,000		.245 (6.22)				
PC28J050	0.5	5.0	7,500		.281 (7.14)				
PC29J3R5	0.35	3.5	10,000	.266 (6.76)	.250 (6.35)	.145 (3.68)	.047 (1.19)	.120-80 UNS-2A	.070 x .015 (1.78) (0.38)
PC29J050	0.5	5.0	7,500	.266 (6.76)	.281 (7.14)	.145 (3.68)	.047 (1.19)	.120-80 UNS-2A	.070 x .015 (1.78) (0.38)
PC29J100	0.8	10.0	7,500	.281 (7.14)	.249 (6.32)	.220 (5.59)	.062 (1.57)	.190-64 UNS-2A	.093 Min x .020 (2.36) (0.51)

<sup>1/</sup> Metric equivalents are shown in parentheses for general information only.

#### REQUIREMENTS:

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

DC voltage rating: 250 volts.

Construction: Alumina ceramic.

Dielectric: Air.

Capacitance range: See table I.

Insulation resistance: Not less than  $10^6$  megohms at room ambient temperature and not less than  $10^5$  megohms at +125°C.

Test condition - 250 volts ±10 percent.

Quality factor (Q): See table I (measured at frequency of 100 MHz).

Driving torque: Greater than or equal to 0.3 ounce-inches and less than or equal to 4.0 ounce-inches from -55°C through +125°C.

Thermal shock: [Method 107 of MIL-STD-202](#), test condition A, except step 3 temperature shall be +125° ±5°C.

Immersion: [Method 104 of MIL-STD-202](#), test condition A.

Resistance to soldering heat: Applicable to style PC28 and PC29 only.

Seal: Applicable, with seal cap on.

Qualification inspection: Qualification inspection is not required. A manufacturer that is currently listed on the QPL for at least one other [MIL-PRF-14409](#) style may supply PC27, PC28, and PC29 parts by performing the group A and group B testing. A manufacturer that is not qualified to any [MIL-PRF-14409](#) styles may produce these parts by performing the group A, group B, and group C testing on the product before delivery.

| 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.

| Referenced documents. In addition to [MIL-PRF-14409](#), this document references [MIL-STD-202](#).

Custodians:  
Army – CR  
Navy - EC  
Air Force - 85

Preparing activity:  
DLA - CC

Review activities:  
Navy - AS, MC, OS  
Air Force - 99

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| 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.daps.dla.mil/>.