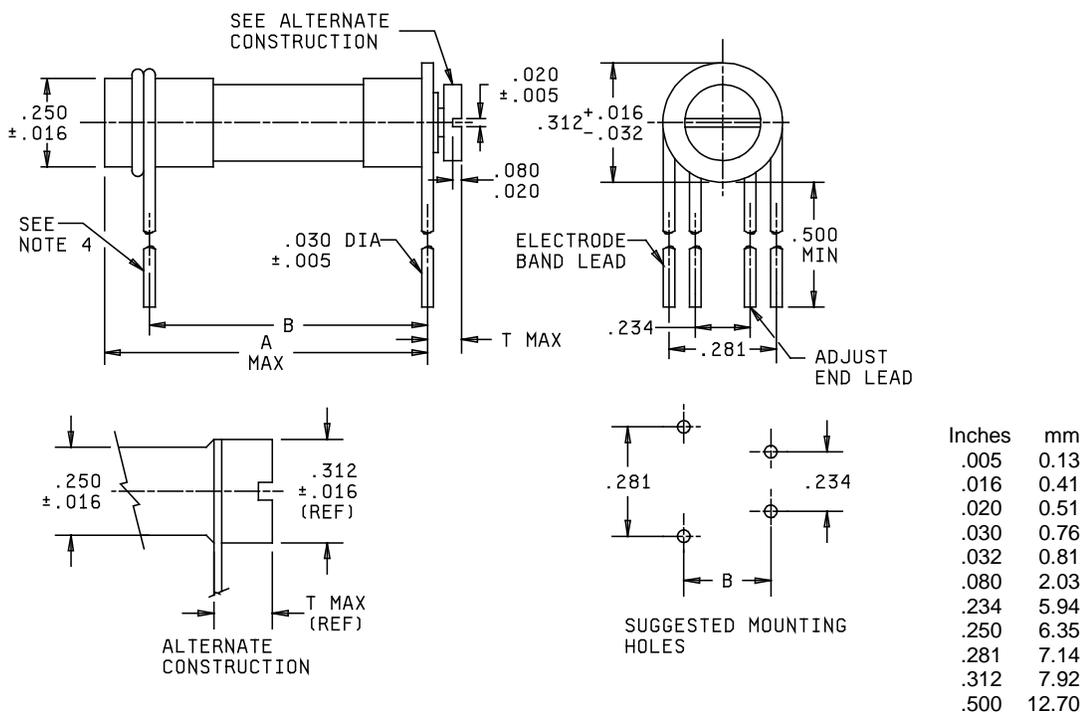


PERFORMANCE SPECIFICATION SHEET
CAPACITORS, VARIABLE (PISTON TYPE,
TUBULAR TRIMMER), STYLES PC41 AND PC51

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 the [MIL-PRF-14409](#).



NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest 0.01 mm) are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .016$.
4. There shall be a minimum of one and one-half turns of wire around the body. These turns shall be completely soldered to the body.
5. This style capacitor is designed for printed-circuit mounting.
6. For dimensions A, B, and T see table I.

FIGURE 1. Dimensions and configuration.

MIL-PRF-14409/7E

REQUIREMENTS:

Dimensions: See figure 1 and table I.

DC voltage rating: 750 volts.

Construction: Glass or quartz, see figure 1 and table I.

Insulation resistance (IR): [Method 302 of MIL-STD-202](#), test condition B (500 volts ± 10 percent); not less than 1,000,000 megohms, except characteristics J and H shall be not less than 100,000 megohms at 125°C.

Capacitance range: See table I.

Quality factor (Q): See table I.

Thermal shock: [Method 107 of MIL-STD-202](#), test condition A, except the step 3 temperature shall be 125°C $\pm 5^\circ\text{C}$ for characteristics J and H, and 150°C $\pm 5^\circ\text{C}$ for characteristic Q.

TABLE I. Type designation and characteristics.

Type designation	Capacitance range		Dimensions <u>1/</u>			Q	Dielectric material	Wire size AWG
	Min	Max	B $\pm .031$ (0.79)	A (max)	T (max)			
	<u>pF</u>	<u>pF</u>						
PC41Q1R8	0.6	1.8	.250 (6.35)	.312 (7.92)	.181 (4.60)	1,500	Quartz	24
PC41Q5R5	0.6	5.5	.438 (11.13)	.562 (14.27)	.186 (4.72)	1,500	Quartz	22
PC41Q9R5	0.6	9.5	.875 (22.23)	1.000 (25.40)	.211 (5.36)	1,500	Quartz	22
PC41Q160	0.8	16.0	1.375 (34.93)	1.609 (40.87)	.196 (4.98)	1,500	Quartz	22
PC51J5R5	0.8	5.5	.250 (6.35)	.312 (7.92)	.181 (4.60)	1,000	Glass	24
PC51J110	0.8	11.0	.438 (11.13)	.562 (14.27)	.186 (4.72)	900	Glass	22
PC51H160	0.8	16.0	.625 (15.88)	.766 (19.46)	.231 (5.87)	800	Glass	22
PC51H230	0.8	23.0	.875 (22.23)	1.000 (25.40)	.211 (5.36)	700	Glass	22
PC51H380	0.8	38.0	1.375 (34.93)	1.609 (40.87)	.196 (4.98)	500	Glass	22

1/ Metric equivalents (to the nearest 0.01 mm) are given for general information only. Millimeters are in parentheses.

TABLE II. Substitutability data.

Superseded type designation in MIL-C-14409/7	Substitutable type designation in MIL-PRF-14409/7A through /7E
PC41J4R5 and PC47J050	PC51J5R5
PC41J8R5 and PC47J100	PC51J110
PC41H120 and PC47H140	PC51H160
PC41H180 and PC47H190	PC51H230
PC41H300	PC51H380

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 also references [MIL-STD-202](#).

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

Preparing activity:
DLA - CC

(Project 5910-2013-031)

Review activities:
Navy - AS, MC, OS

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>.