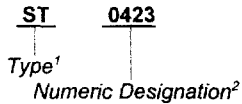


Variable Compression Mica Trimmers and Padders

Part Number Construction



1. Type: ST; PC; C
2. Numeric Designation: Indicates shape, construction, dimensions, and capacitance.

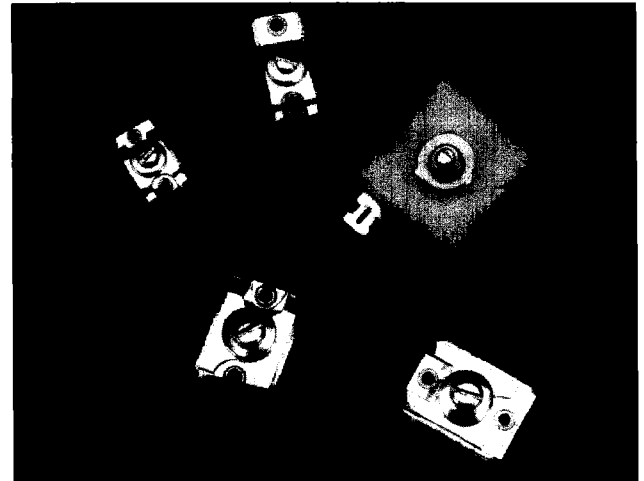
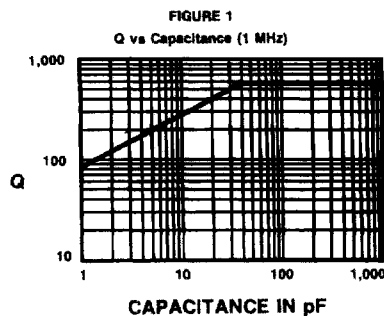
STANDARD TRIMMERS

These variable compression mica trimming capacitors are produced by stacking mica dielectric capacitance units. A capacitor section consists of a thin film of mica between two spring loaded nonferrous metal conducting plates; the stacked units are mounted within a ceramic container, or on a ceramic base. By alternating metal plate, mica film, metal plate, etc., and paralleling these units, any desired capacitance within the physical limitations of the ceramic base can be achieved. A panhead adjusting screw #2-64, UNS-2 thread for types 40 and 42 and a #4-64, UNS-2 thread for type 46 is inserted through the center holes of the plates, the mica films, and the threaded bushing. This screw provides variable compression on the formed metal plates, varying the plate separation capacitance.

Arco trimming capacitors are treated for resistance to humidity and for permanence of capacity setting. The base is made of the lowest loss ceramic dielectric available and the mica is clear India Ruby. The soldering lugs may be bent in any position without affecting the capacitance setting.

Trimmers shown are standard sizes and capacities.

Standard dimensional adjustment tolerance is $\pm 1/32"$ or $\pm 3\frac{1}{2}\%$, whichever is applicable. Terminals having several lugs can be spotwelded together to prevent separation and flaring.



SPECIFICATIONS

OPERATING TEMPERATURE

-35°C TO +85°C

MAXIMUM CAPACITANCE

Equal to, or greater than, the value indicated in the table, when the adjusting screw is at a light position (with light being defined as 1% pound/in).

MINIMUM CAPACITANCE

Equal to, or less than, the value indicated in the table, when the adjusting screw is rotated 3 times from the light position.

DC VOLTAGE

Type 35 - 250V (rated); 500V (test)
Types 40, 42, 46 - 175V (rated); 350V (test)
Type 30M - 500V (rated); 1000V (test)

INSULATION RESISTANCE

100,000 meg-ohms minimum @ 25°C.

Q @ 1MHz

See Q curve, Fig. 1.

DISSIPATION FACTOR @ 1KHz

1000 pF max.; D.F. .004 max.

CAPACITANCE CHANGE WITH TEMPERATURE*

Type 30 - $\pm (2.5\% + 0.3pF)$
Types 40, 42, 46 - $\pm (1.0\% + 0.3pF)$

CAPACITANCE DRIFT WITH TEMPERATURE*

Type 30 - $\pm (2.0\% + 0.5pF)$
Types 40, 42, 46 - $\pm (1.5\% + 0.5pF)$

*SCREW ADJUSTED 4 - 8 TURNS FROM LIGHT.

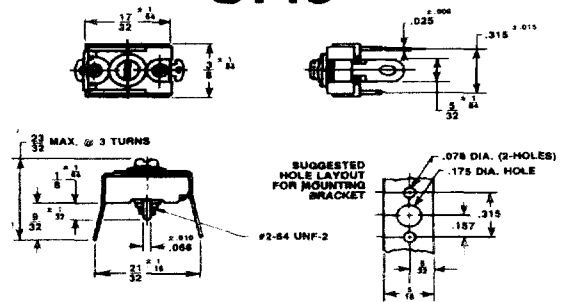
Variable Compression Mica Trimmers and Padders

Type ST-40xx - MINIATURE TRIMMER

VOLTAGE 350 VDCT - 175 VDCT

TYPE 40		GUARANTEED RANGE	
Part Number	Tight (Cap. > pF)	at 3 turns (Cap. < pF)	
400	7	2.5	
402	20	4	
403	45	8	
404	65	12	
405	90	16	
406	115	25	
407	285	55	
408	340	90	

ST40

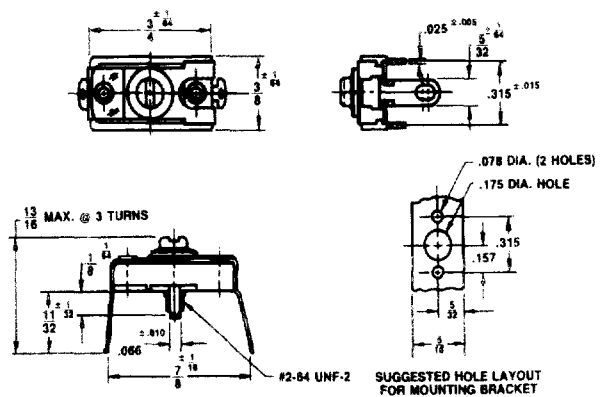


Type ST-42xx - MIDGET TRIMMER

VOLTAGE 350 VDCT - 175 VDCT

TYPE 42		GUARANTEED RANGE	
Part Number	Tight (Cap. > pF)	at 3 turns (Cap. < pF)	
420	12	2.5	
421	25	3.5	
422	40	7	
423	100	16	
424	150	25	
425	200	40	
426	250	55	
427	300	75	
428	350	95	
429	400	115	
4210	450	130	
4211	500	150	
4212	550	170	
4213	600	200	
4214	650	220	
4215	700	240	

ST42

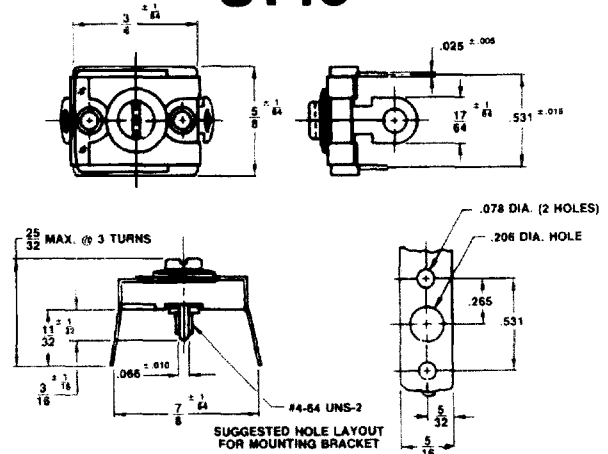


Type ST-46xx - STANDARD TRIMMER

VOLTAGE 350 VDCT - 175 VDCT

TYPE 46		GUARANTEED RANGE	
Part Number	Tight (Cap. > pF)	at 3 turns (Cap. < pF)	
460	15	3	
461	30	5	
462	80	10	
463	180	20	
464	280	45	
465	380	75	
466	480	105	
467	580	140	
468	680	175	
469	790	215	
4610	900	260	
4611	1000	300	
4612	1100	330	
4613	1200	360	
4614	1300	380	
4615	1400	420	

ST46



Variable Compression Mica Trimmers and Padders

"PC" TRIMMERS

The Arco trimmer capacitors, Types 40, 42, and 46, have been adapted for printed circuit techniques. Thus, the holes in the terminal lugs are eliminated. The printed circuit terminals have greatly increased spring action, allowing the trimmer to be snapped in the printed circuit board and held firmly until soldered. The mounting lug portion of the trimmer has also been modified to facilitate positioning and support of the unit. Drawings of the trimmers and mounting layout are available upon request.

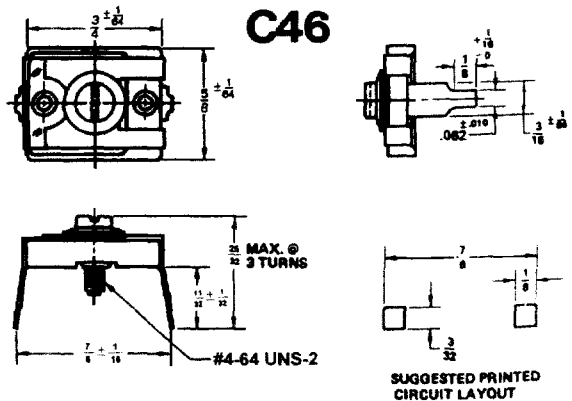
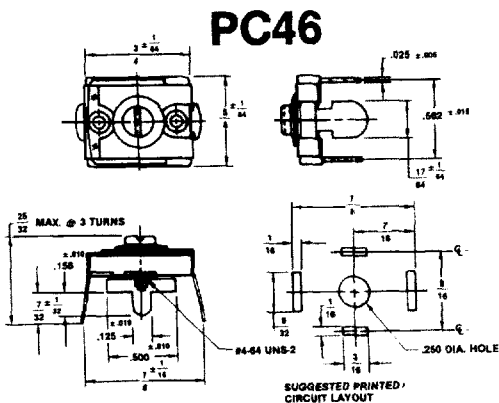
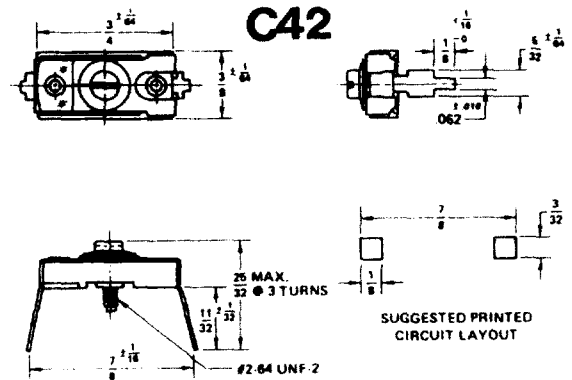
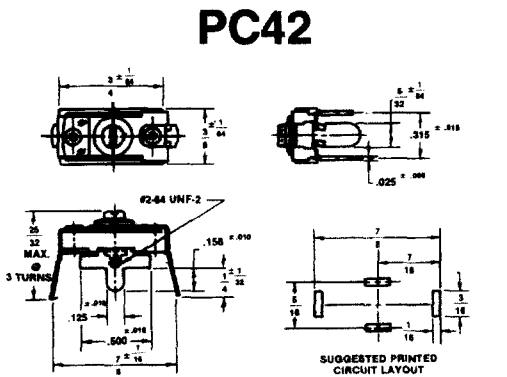
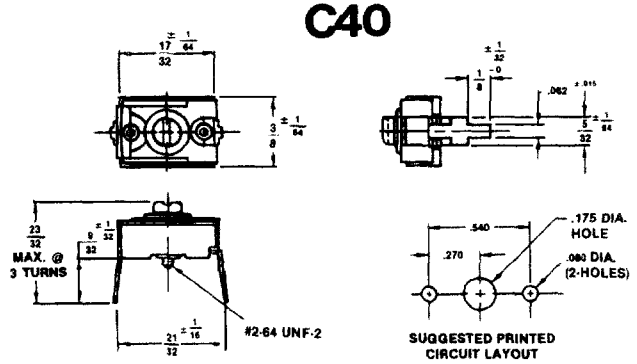
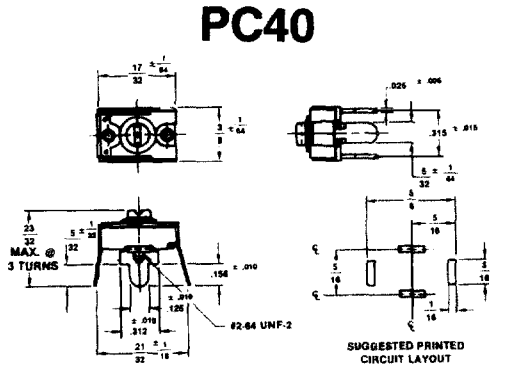
This printed circuit style is designated by the prefix letters "PC" followed by the regular part number. All values listed are available in PC style.

"C" TRIMMERS

Type C trimmer is a stand off variation for printed circuit application. Instead of the raised staple, the Type C trimmer has .062" width notched terminals. The Type C trimmer has .062" width notched terminals to raise the trimmer from the printed circuit board .125 inches. Designate type C by preceding the part number with the letter C.

Example: 426 trimmer in Type C would be C-0426.

'PC' Printed Circuit Style Trimmers



Variable Compression Mica Trimmers and Padders

Variable Compression Mica Padders

The Arco Type 30 Variable Compression Mica padder is designed with a ceramic base having walls which completely enclose and protect the plates and mica films from damage due to handling. The spring of the brass plates assures freedom from mechanical fatigue, and applies a constant pressure when the adjusting screw is varied from tight to open position. All plates are cadmium plated to facilitate production soldering.

MINIMUM CAPACITANCE

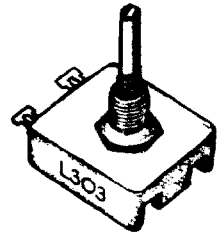
Equal to or less than the value indicated below when the adjusting screw is rotated 3 turns from tight ($1\frac{1}{4}$ lb/in.) position.

MAXIMUM CAPACITANCE

Equal to or greater than the value indicated below when the adjusting screw is in tight position.

TYPE L30

The Type 30 or Type 30 M padder can now be obtained with a slotted shaft & bushing. To obtain this padder, precede the regular part number with the letter "L". For example, a 302 padder with the slotted shaft would be specified as "L-302".



TYPE 30

250 WVDC - 500 Volts DC flash test

TYPE 30	CHARACTERISTICS	
Part No.	MINIMUM CAPACITANCE (pF)	MAXIMUM CAPACITANCE (pF)
302	130	15
303	340	85
304	550	115
305	760	190
306	970	275
307	1180	350
308	1390	450
309	1600	550
310	1890	650
311	2110	780
312	2330	880
313	2605	1150
314	2830	1300
315	3055	1400

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using $1\frac{1}{2}$ to $1\frac{3}{4}$ Mil Mica films.

TYPE 30-M

500 WVDC - 1000 Volts DC flash test

TYPE 30-M	CHARACTERISTICS	
Part No.	MINIMUM CAPACITANCE (pF)	MAXIMUM CAPACITANCE (pF)
302M	120	15
303M	320	85
304M	500	100
305M	690	180
306M	880	265
307M	1070	340
308M	1260	425
309M	1415	525
310M	1600	615
311M	1785	730
312M	1970	800
313M	2155	1000
314M	2340	1100
315M	2525	1200

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to $2\frac{1}{4}$ Mil Mica films.

