

# Variable Compression Mica Trimmers and Padders

## Part Number Construction

ST      0423  
Type<sup>1</sup>      Numeric Designation<sup>2</sup>

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

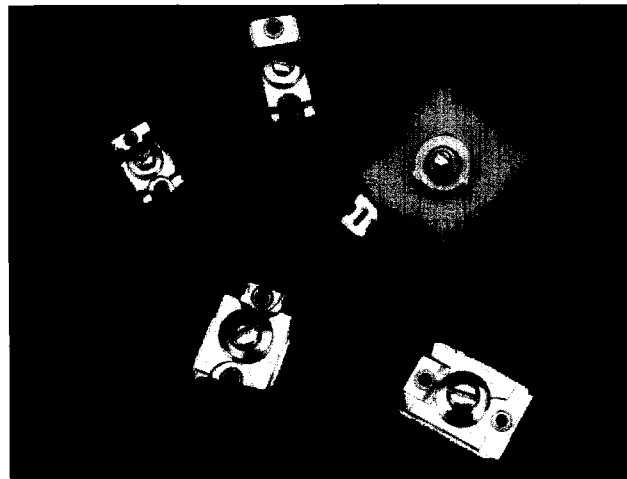
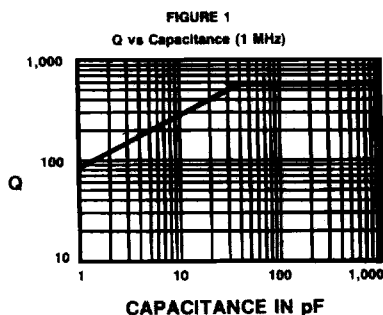
## STANDARD TRIMMERS

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 -55°C TO +125°C	
MAXIMUM CAPACITANCE Equal to or greater than the value indicated in the table, when the adjusting screw is rotated 3 turns from the fully retracted position.	
MINIMUM CAPACITANCE Equal to or less than the value indicated in the table, when the adjusting screw is rotated 3 turns from the fully retracted position.	
DC VOLTAGE Type 40      200V (rated), 500V (peak) Types 42, 46      100V (rated), 250V (peak) Type 30      200V (rated), 100V (peak)	
INSULATING RESISTANCE 100,000 megohms minimum @ 25°C	
Q @ 1MHz See Q curve, Fig. 1	
ENVIRONMENTAL RESISTANCE (100% humidity, 100% vibration)	
CAPACITANCE CHANGE WITH TEMPERATURE Type 40 $\pm 2.5\% \pm 0.1pF$ Types 42, 46 $\pm 1.0\% \pm 0.1pF$	
CAPACITANCE DRIFT WITH TEMPERATURE Type 30 $\pm 2.0\% \pm 0.5pF$ Types 40, 42, 46 $\pm 1.5\% \pm 0.5pF$	
TERMINAL RESISTANCE 50 ohms maximum	

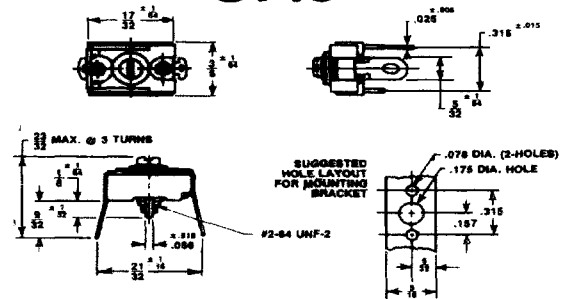
# Variable Compression Mica Trimmers and Padders

## Type ST-40xx - MINIATURE TRIMMER

VOLTAGE 350 VDCT - 175 VDCT

TYPE #	MINIMUM CAPACITANCE	MAXIMUM CAPACITANCE
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

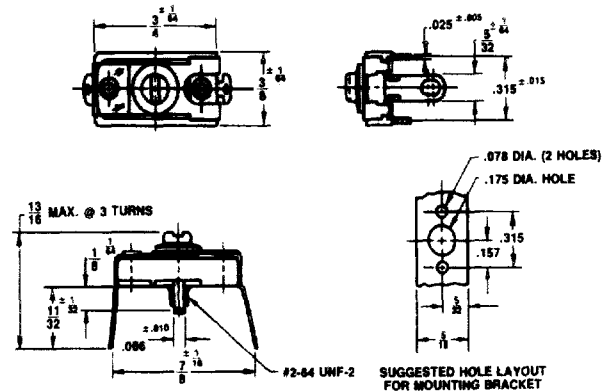


## Type ST-42xx - MIDGET TRIMMER

VOLTAGE 350 VDCT - 175 VDCT

TYPE #	MINIMUM CAPACITANCE	MAXIMUM CAPACITANCE
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

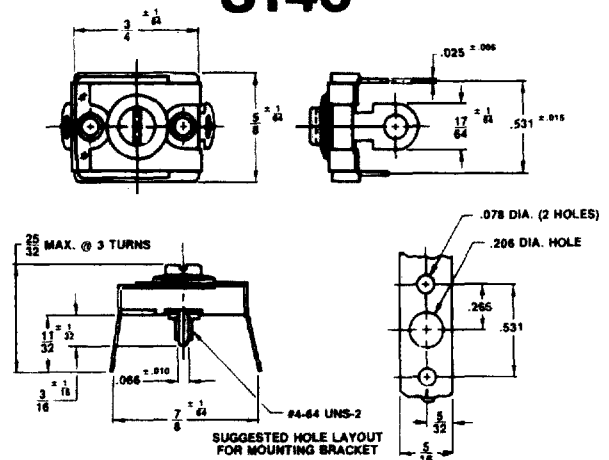


## Type ST-46xx - STANDARD TRIMMER

VOLTAGE 350 VDCT - 175 VDCT

TYPE #	MINIMUM CAPACITANCE	MAXIMUM CAPACITANCE
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.

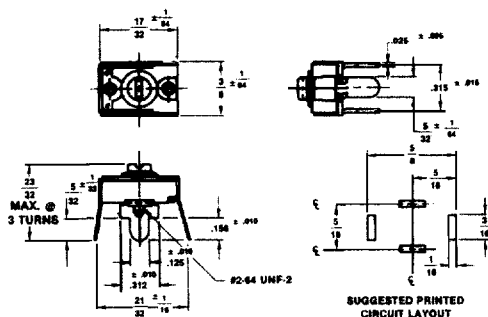
## "C" TRIMMERS

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 to raise the trimmer from the printed circuit board .125 inches. Designate type C by preceding the part number with the letter C.

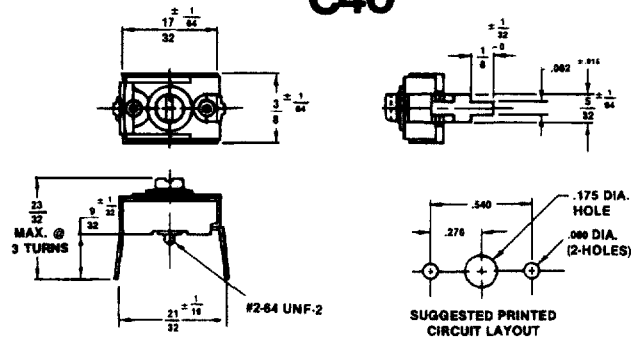
Example: 426 trimmer in Type C would be C-0426.

## 'PC' Printed Circuit Style Trimmers

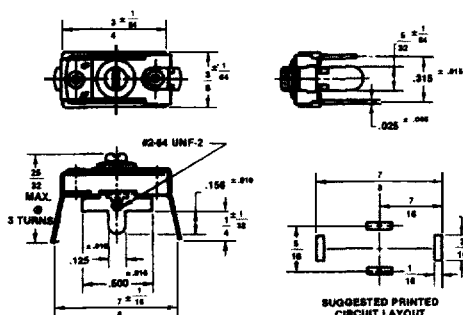
### PC40



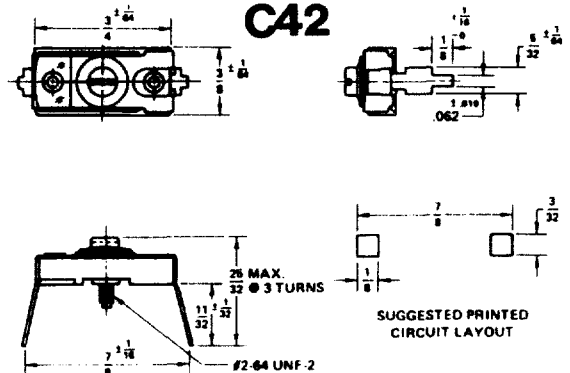
### C40



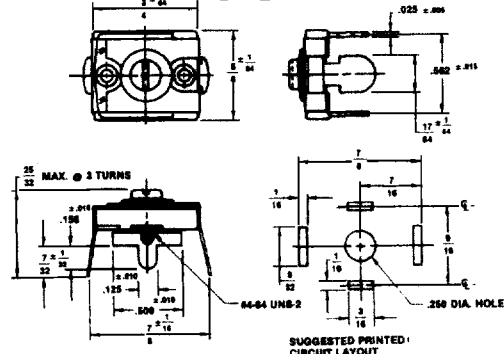
### PC42



### C42



### PC46



### C46

