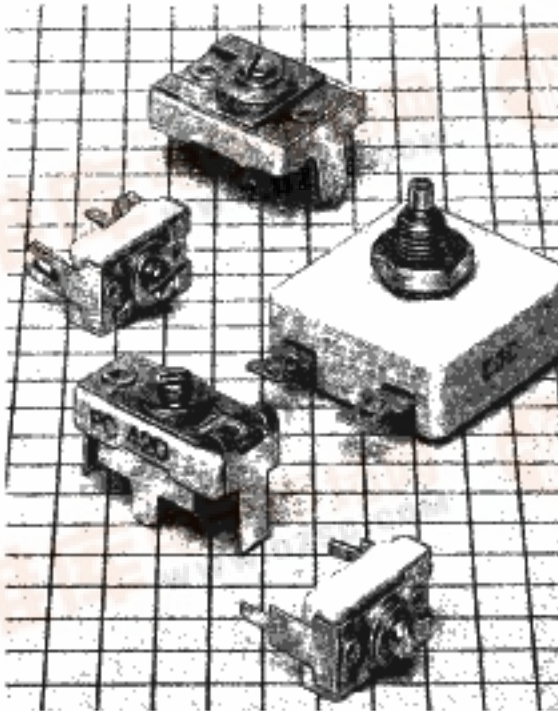


# VARIABLE COMPRESSION MICA TRIMMERS AND PADDERS



## 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  $\pm 3\%$ , whichever is applicable. Terminals having several lugs can be spotwelded together to prevent separation and

## Specifications

**OPERATING TEMPERATURE:**  $-35^{\circ}\text{C}$  to  $\pm 85^{\circ}\text{C}$ .

**MAXIMUM CAPACITANCE:** Equal to, or greater than the value indicated in the table. When the adjusting screw is at a tight position (with tight being defined as  $1\frac{3}{4}$  pound-inches). The maximum capacitance will be equal to or greater than the value indicated in the table.

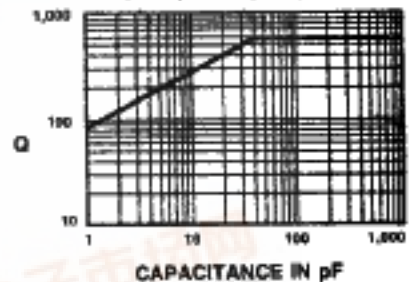
**MINIMUM CAPACITANCE:** Equal to, or less than, the value indicated in the table. When the adjusting screw is rotated 3 turns from tight position, the maximum capacitance will be equal to or less than the value indicated in the table.

DC VOLTAGE:	Rated Voltage	Test Voltage
Type 30	250	500
Types 40, 42, 46	175	350
Type 30M	500	1000

**INSULATION RESISTANCE at  $25^{\circ}\text{C}$ :** 100,000 meg-ohms minimum.

**Q at 1 MHz:** See Q curve, Figure 1.

FIGURE 1  
Q vs Capacitance (1 MHz)



**DISSIPATION FACTOR at 1 kHz:** > 1000 pF Max; D.F. .004 max.

**CAPACITANCE CHANGE WITH TEMPERATURE at Working Point\*:**

TYPE 30: =  $\pm (2.5\% + 0.3 \text{ pF})$

TYPE 40, 42, 46: =  $\pm (1.5\% + 0.3 \text{ pF})$

**CAPACITANCE DRIFT WITH TEMPERATURE at Working Point\*:**

TYPE 30: =  $\pm (2.0\% + 0.5 \text{ pF})$

TYPE 40, 42, 46: =  $\pm (1.5\% + 0.5 \text{ pF})$

\* Screw adjusted to  $1/4$  to  $1/2$  turn from tight.

## TYPE DESIGNATION

ST 0423  
1 2

- 1) Mounting Style  
ST — Standard Bracket Mounting Style  
PC — Printed Circuit Mounting Style  
C — Variation of Printed Circuit Mounting Style
- 2) Indicates shape, construction, dimensions and capacitance.



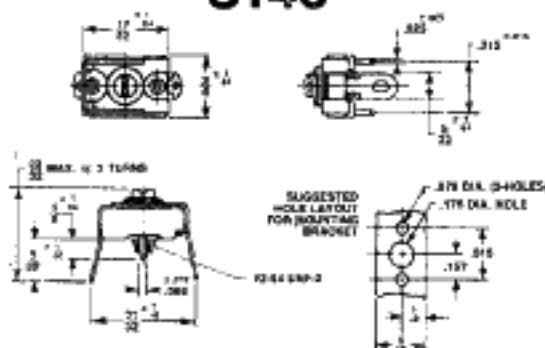
# Standard Range Trimmers

NOTE: All dimensions in inches.

## Type 40 — MINIATURE TRIMMER Voltage 350 VDCT — 175 VDCW

TYPE 40 PART NUMBER	GUARANTEED RANGE	
	At Tight Cap. Will Be More Than pF.	At 3 Turns Open Cap. Will Be Less Than pF.
400	7	2.5
402	20	4
403	45	5
404	105	12
405	90	16
406	115	25
407	265	55
408	340	90

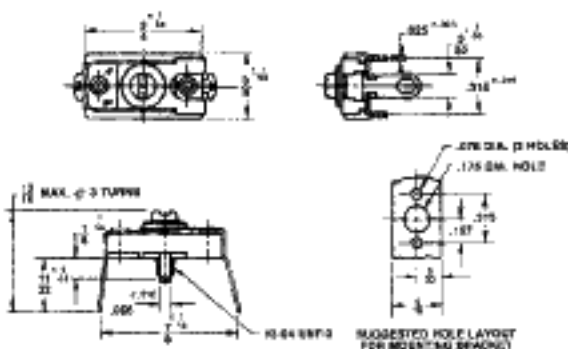
## ST40



## Type 42 — MIDGET TRIMMER Voltage 350 VDCT — 175 VDCW

TYPE 42 PART NUMBER	GUARANTEED RANGE	
	At Tight Cap. Will Be More Than pF.	At 3 Turns Open Cap. Will Be Less Than 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 46 — STANDARD TRIMMER Voltage 350 VDCT — 175 VDCW

TYPE 46 PART NUMBER	GUARANTEED RANGE	
	At Tight Cap. Will Be More Than pF.	At 3 Turns Open Cap. Will Be Less Than pF.
460	15	3
461	30	5
462	60	10
463	100	20
464	200	45
465	300	75
466	400	105
467	500	140
468	600	175
469	700	215
4610	900	260
4611	1000	300
4612	1100	330
4613	1200	360
4614	1300	380
4615	1400	420

## ST46

