

## SURFACE MOUNT TRIMMER CAPACITORS

SMD thin trimmers

### SMD THIN CERAMIC TRIMMER CAPACITORS AT9401, AT9402 & AT9410 SERIES

#### Description

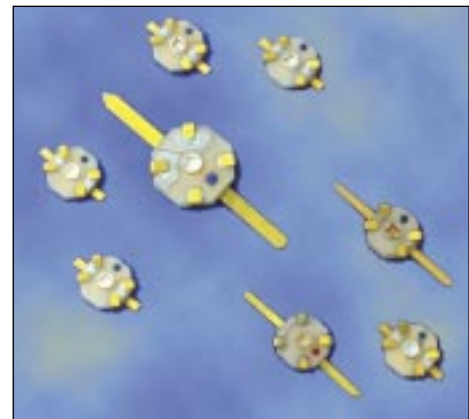
- SMD thin trimmer capacitors are an advanced development in miniaturized trimmer capacitors for applications in circuits where size and performance are critical.
- The SMD thin trimmer capacitors embodies a radical reduction in size and weight over standard ceramic capacitors, with a proportional improvement in electrical characteristics. The capacitor consists of a metallic rotor suspended under spring pressure between two metallized dielectric disks. In addition to physically securing the assembly, the springs serve as both the internal electrical connection and the external terminal, simplifying the construction and further reducing size. The incorporation of the square drive tuning mechanism insures captive, non-slip, tamper-proof adjustments which are not subject to backlash problems associated with screwdriver type adjustment slots.
- SMD thin trimmer capacitors ([AT9401 series](#)) feature high Q performance up to 2 GHz and beyond. AT9401 series construction incorporates a butterfly electrode pattern which provides a series parallel capacitor with extremely low ESR and ESL.

#### Features

- Working voltage 250 VDC, test 500 VDC
- Resistance to cleaning solvents and soldering heat, moisture resistance, solderability meet MIL-STD-202
- Conform with specification MIL-C-81

#### Applications

- Microprocessor clock - Interstage coupling
- Filter networks - Impedance matching
- Crystal trimming - Antenna tuning
- Electronic watches - Telemetry
- Avionics equipment
- WLAN

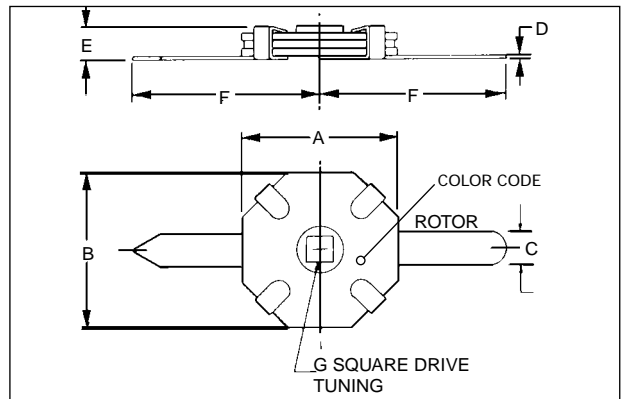


# SURFACE MOUNT TRIMMER CAPACITORS

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## Characteristics (AT94XX series)

Range	See table
Voltage	Rated 250 VDC Test 500 VDC
Q at 100 MHz	See table
Operating temp.	-55° C to +125° C
Temp. coeff.	See table
Torque	See table
Insulation resistance	> 10 <sup>4</sup> MΩ at 500 VDC
Vibration	15 g 10-2000 Hz
Shock	100 g 6 ms
Capacitance drift	< 1 %



Gold finish terminals

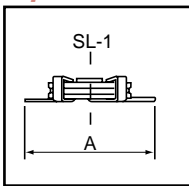
## Technical data

Temex Part N°	Capacitance range (pF)	Temperature coefficient (ppm/°C)	Min Q at 100 MHz	Torque g.cm
AT9401-0	0.25 - 0.7	50 ± 50	1000	4 - 70
AT9401-1	0.5 - 1.3	NPO ± 100	1000	4 - 70
AT9401-2	0.6 - 2	- 400 ± 200	1000	4 - 70
AT9401-4	1.5 - 4	- 1100 ± 300	500	4 - 70
AT9402-0	0.6 - 2.5	100 ± 100	3000	4 - 70
AT9402-1	1 - 5	100 ± 200	1000	4 - 70
AT9402-2	2.5 - 10	- 50 ± 100	1000	4 - 70
AT9402-4	3 - 12	- 1100 ± 300	500	4 - 70
AT9402-6	6 - 25	- 1100 ± 300	300	4 - 70
AT9402-8	5 - 15	- 300 ± 300	750	4 - 70
AT9402-9	5 - 18	- 450 ± 300	500	4 - 70
AT9410-0	1 - 4.5	50 ± 50	1000	14 - 140
AT9410-1	2.5 - 10	- 100 ± 200	1000	14 - 140
AT9410-2	4 - 18	- 400 ± 200	700	14 - 140
AT9410-3	6 - 35	- 1100 ± 300	200	14 - 140
AT9410-4	7 - 40	- 1100 ± 300	200	14 - 140
AT9410-5	8 - 50	- 1500 ± 500	200	14 - 140
AT9410-25	5 - 25	NPO ± 150	200	14 - 140

## Dimensions (mm)

Color Code	A	B	C	D	E	F	G
Red Black Blue Brown	3.6 max	3.2	0.5	0.1	1.0 max	5.0	0.6
Red Black Blue Brown Yellow None Grey	3.2	3.2	0.5	0.1	1.0	5.0	0.6
Red Black Blue Orange Brown Green Yellow	5.1	5.1	1.0	0.1	1.5 max	7.6	0.8

## Optional configuration



Temex P/Nb	SL A
AT9401 Series	5.1
AT9402 Series	5.1
AT9410 Series	6.4 Max

## Packaging

- **BULK:**
- **TAPE AND REEL:**

TEMEX standard bulk packaging in a sealed antistatic plastic bag  
 TEMEX standard tape and reel packaging is available in quantities of 1500 or 6000 pieces per reel on carrier tape 12 mm width for AT9401 SL and AT9402 SL products, and in quantities of 3000 pieces per reel on carrier tape 24 mm width for AT9410 products

## How to order?

- Standard .....ex: AT9402-2
- For optional configuration add code after TEMEX P/ Nb .....ex: AT9402-2 SL1



**TEMEX Tuning Tool:**  
 AT4192: For 9401 and 9402 series  
 AT4193: For 9410 series