

SMD THIN & SEALED CERAMIC TRIMMER CAPACITORS

Description

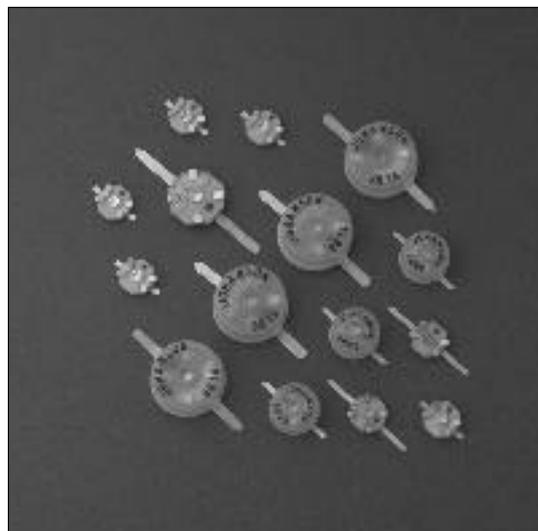
- SMD thin trimmer capacitors are an advanced development in miniaturized trimmer capacitors for applications in circuits where size and performance are critical.
- The SMD thin trimmer capacitors embodies a radical reduction in size and weight over standard ceramic capacitors, with a proportional improvement in electrical characteristics. The capacitor consists of a metallic rotor suspended under spring pressure between two metalized 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.
- The Sealed trimmer is a high performance SMD thin ceramic trimmer capacitor encapsulated in a moistureproof housing. This design resists intrusion of dirt, dust, solder flux and cleaning agents during assembly and atmospheric contamination during use. These capacitors offer low drift rates and high Q, making them ideal for higher frequency applications beyond the limits of ordinary ceramic trimmer capacitors

Features

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

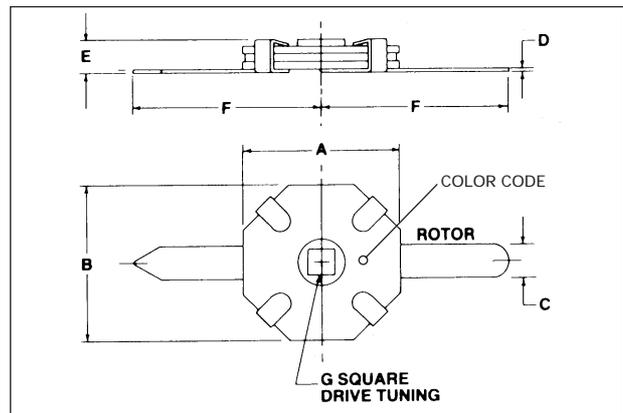
Applications

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



Characteristics

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 ⁴ MΩ at 500 VDC
Vibration	15 g 10-2000 Hz
Shock	100 g 6 ms
Capacitance drift	< 1 %



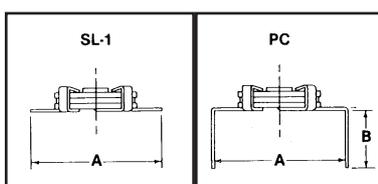
Technical data

Tekelec 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
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

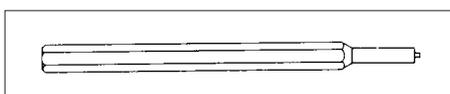


Packaging

- **BULK:** TEKELEC standard bulk packaging in a sealed antistatic plastic bag
- **TAPE AND REEL:** TEKELEC 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 TEKELEC P/ Nb ex: AT9402-2 PC



TEKELEC Tuning Tool : AT4192 : For 9401 and 9402 series
AT4193 : For 9410 series

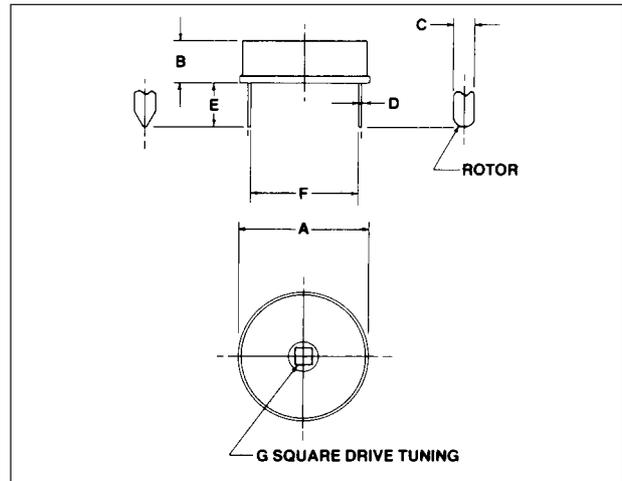
SURFACE MOUNT TRIMMER CAPACITORS



Sealed trimmers

Characteristics

Range	See table
Voltage	Rated 250 VDC - 400 VDC Test 500 VDC - 800 VDC } 9690
Q factor	See table
Operating temp.	-20° C to +85° C
Temp. coeff.	See table
Torque	See table
Insulation resistance	> 10 ⁴ MΩ at test voltage
Vibration	15 g 10-2000 Hz
Shock	100 g 6 ms
Capacitance drift	< 1 %
Moisture resistance	24 H 25° C to 65° C and 80 % to 98% R.H. for 10 days



Technical data

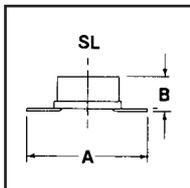
Tekelec Part N°	Capacitance range (pF)	Temperature coefficient (ppM/°C)	Min Q at 100 MHz	Torque g.cm
AT9620	0.6 - 2.5	100 ± 150	1000	4 - 70
AT9621	1 - 5	0 ± 400	1000	4 - 70
AT9622	2.5 - 10	100 ± 600	1000	4 - 70
AT9626	6 - 25	- 1500 ± 900	300	4 - 70
AT9628	5 - 15	- 300 ± 300	750	4 - 70
AT9629	5 - 18	- 450 ± 300	500	4 - 70
AT9610	1 - 4.5	50 ± 150	1000	14 - 140
AT9611	2.5 - 10	- 100 ± 500	1000	14 - 140
AT9612	4 - 18	- 300 ± 800	700	14 - 140
AT9613	6 - 35	- 1500 ± 900	200	14 - 140
AT9614	7 - 40	- 1500 ± 900	200	14 - 140
AT9615	5 - 25	- 400 ± 500	200	14 - 140
AT9616	8 - 50	- 1500 ± 900	200	14 - 140
AT9694	7.5 - 50	- 1500 ± 900	1000*	14 - 140
AT9697	20 - 100	- 1500 ± 900	1000*	14 - 140

* Min Q at 1 MHz

Dimensions (mm)

A	B	C	D	E	F	G
4.6	2.2	0.5	0.1	2.2	3.6	0.6
6.9	2.5	1.0	0.13	3.8	5.6	0.8
9.9	3.2	1.6	0.15	3.8	8.4	1.3

Optional configuration



Tekelec P/Nb	A	B
AT9620 Series	8.1	2.3
AT9610 Series	13.2	2.8

How to order

- Standard
- For optional configuration add code after TEKELEC P/ Nb

ex: AT9622
ex: AT9622-SL



TEKELEC Tuning Tool :

AT4192 : For 9620 series
AT4193 : For 9610 series
AT2190 : For 9690 series

SALES OFFICES

WEB SITE: <http://www.tekelec-temex.com>

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