

Sprague-Goodman

ENGINEERING BULLETIN

SG-660B

Supercedes SG-660A

AIRTRIM® AIR DIELECTRIC MULTITURN TRIMMER CAPACITORS

APPLICATIONS

Designed for VHF, UHF and microwave applications: amplifiers, oscillators, filters, radar, cable TV, mobile radios and RF appliances. Suitable for military and aerospace environments.

FEATURES

- High Q
- Fourteen standard mounting styles, including surface mount
- Excellent stability
- Designed to meet MIL-C-14409D
- Multiturn resolution

SPECIFICATIONS

Operating Temperature Range: -65° to $+125^{\circ}\text{C}$

Working Voltage: 250 VDC

Test Voltage: 500 VDC

Insulation Resistance: $>10^6$ Megohms

Contact Resistance: <0.01 Ohms

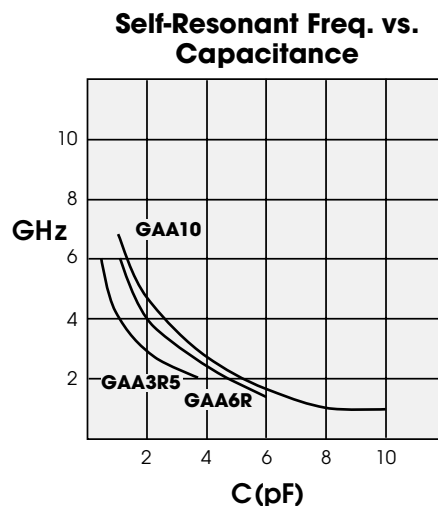
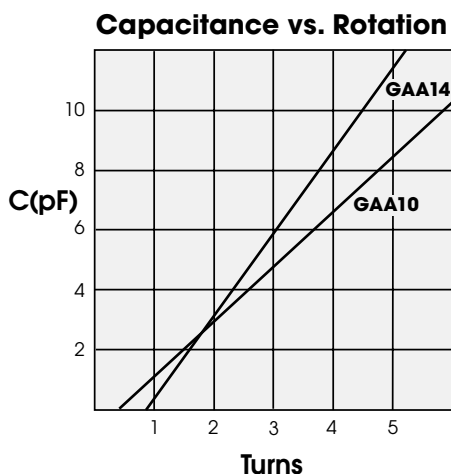
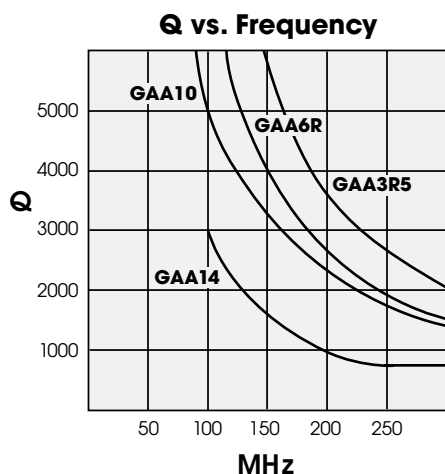


Q: >5000 at 100 MHz

Vibration: 60 g, 10 to 2000Hz

Shock: 1500 g, 0.5 ms

Constructed with 300°C solder



Sprague-Goodman Electronics, Inc.

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PART NUMBERING SYSTEM

GA — Air Dielectric

A — Multiturn

6R0 — Maximum Rated Capacitance — expressed in pF by three digits. The first two are significant figures; the last specifies the number of zeros that follow. The letter R indicates a decimal point.

01

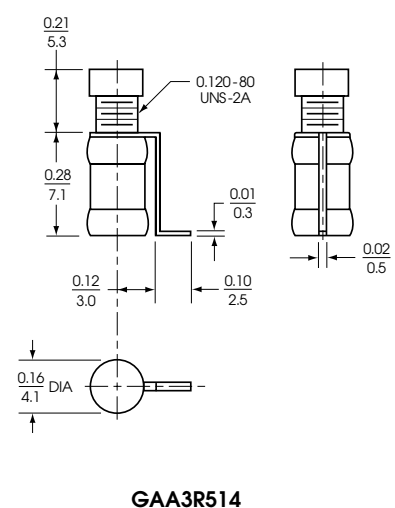
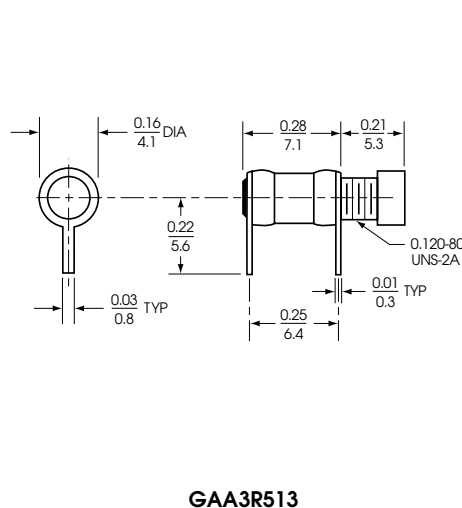
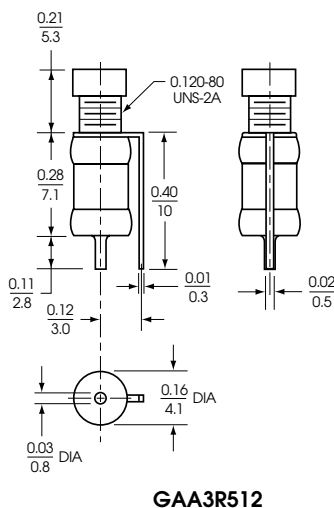
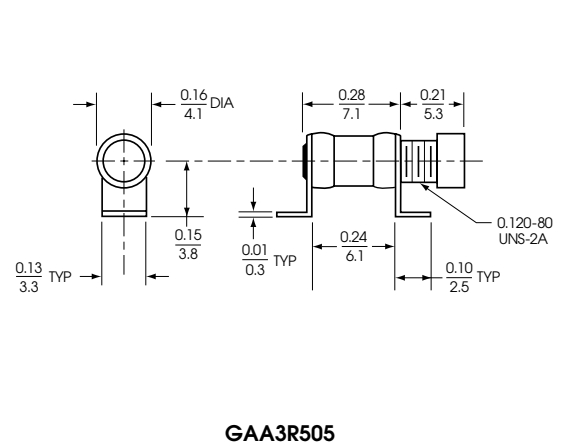
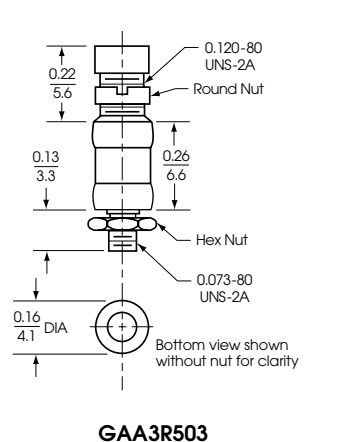
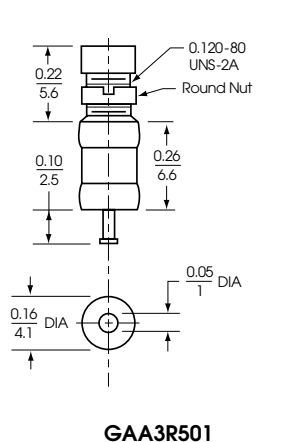
Mounting Modifications

- | | |
|---|---|
| 01 — Panel mount, turret | 09 — Vertical surface mount (wide lead) |
| 02 — Panel mount, lug | 10 — Vertical turret and lugs (wide double) |
| 03 — Panel mount, threaded stud | 11 — Vertical turret and lugs (narrow double) |
| 04 — PC mount, 3 lugs (1 stator, 2 rotor) | 12 — Vertical turret and lug (narrow single) |
| 05 — Horizontal surface mount | 13 — PC mount, 2 lugs |
| 06 — Vertical mount, turret and lug (wide single) | 14 — Vertical surface mount (narrow lead) |
| 07 — Vertical mount, stud and lug (wide single) | |
| 08 — Vertical mount, through board | |

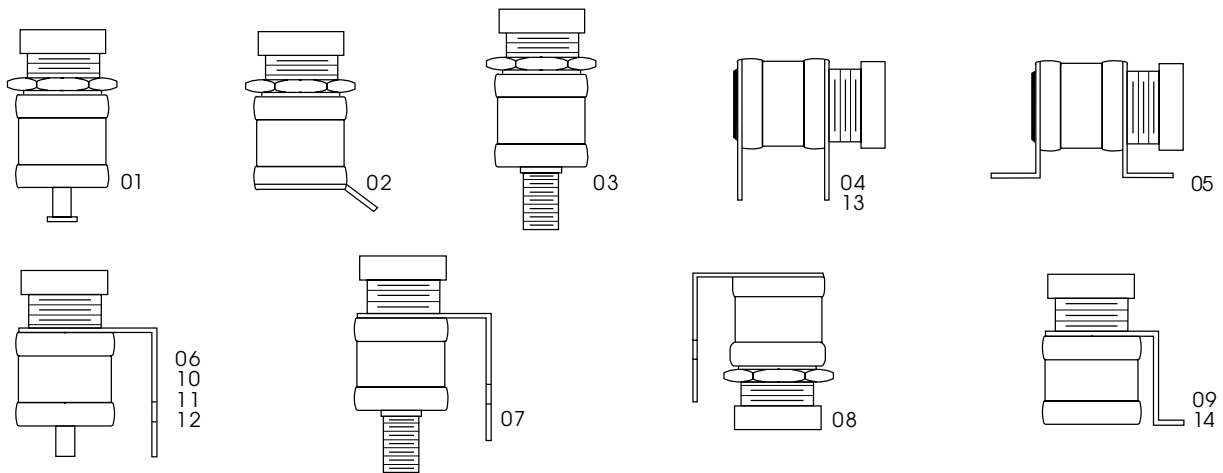
0.35–3.5 pF CAPACITANCE RANGE

- Torque: 0.3 to 3.0 oz-in (22 to 216 g-cm)
- Temperature Coefficient: ± 30 ppm/°C
- Self-Resonant Frequency: >6 GHz at min capacitance

Dimensions are in/mm
Adjust screw slot: 0.060/1.5 x 0.016/0.41



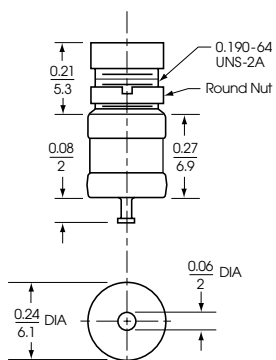
Not to scale.



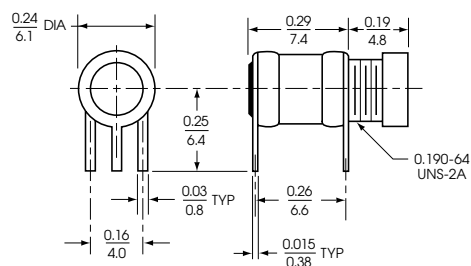
0.6-6.0 pF CAPACITANCE RANGE

- Torque: 0.4 to 4.0 oz-in (29 to 288 g-cm)
- Temperature Coefficient: ± 15 ppm/°C
- Self-Resonant Frequency: > 6 GHz at min capacitance

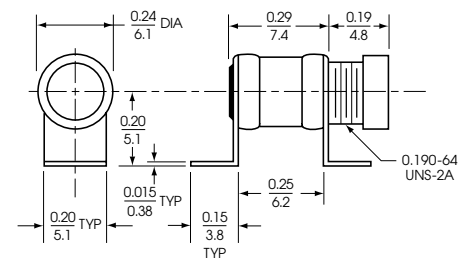
Dimensions are in/mm
Adjust screw slot: 0.13/3.3 x 0.020/0.51



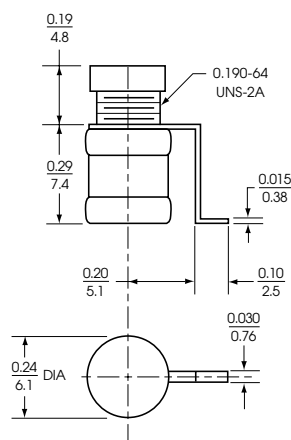
GAA6R001



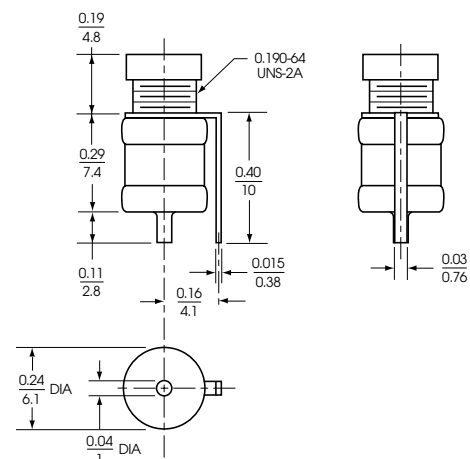
GAA6R004



GAA6R005



GAA6R014

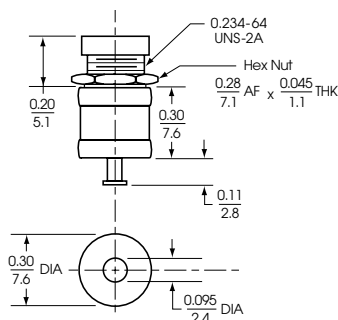


GAA6R012

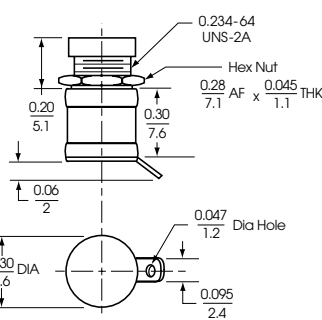
1.0 – 10.0 pF, 1.0 – 14.0 pF and 2.0 – 16.0 pF CAPACITANCE RANGES

- Torque: 0.5 to 5.0 oz-in (36 to 360 g-cm)
- Temperature Coefficient: ± 15 ppm/°C
- Self-Resonant Frequency: >5 GHz at min capacitance

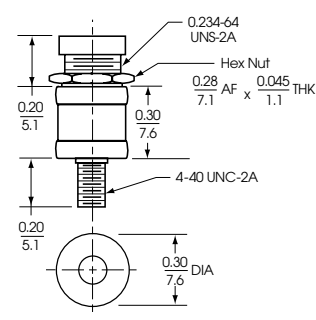
Dimensions are in/mm
Adjust screw slot: 0.16/4.0 x 0.020/0.51



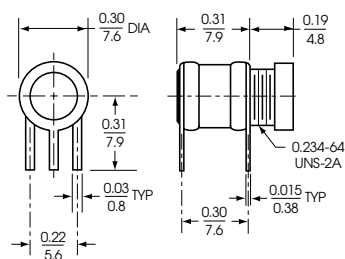
GAA10001, GAA14001 & GAA16001



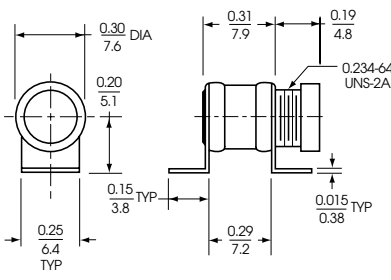
GAA10002, GAA14002 & GAA16002



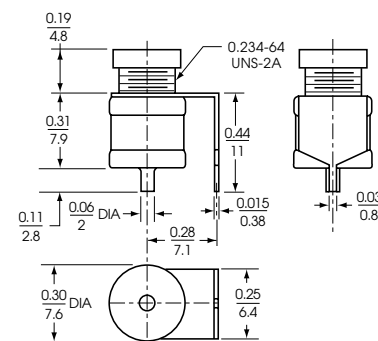
GAA10003, GAA14003 & GAA16003



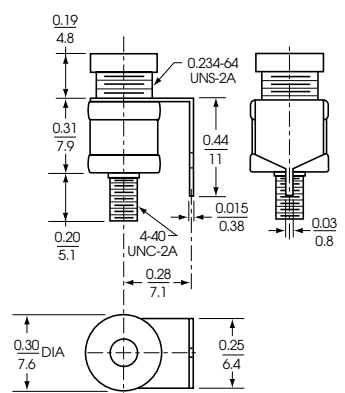
GAA10004, GAA14004 & GAA16004



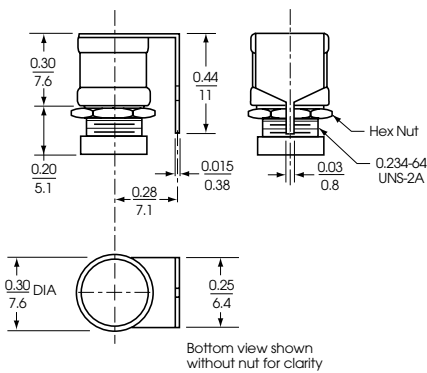
GAA10005, GAA14005 & GAA16005



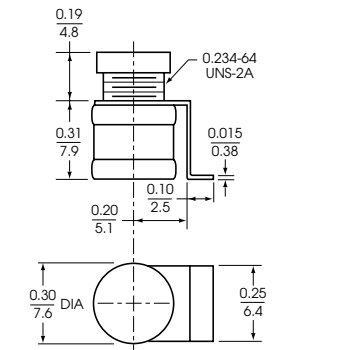
GAA10006, GAA14006 & GAA16006



GAA10007, GAA14007 & GAA16007



GAA10008, GAA14008 & GAA16008



GAA10009, GAA14009 & GAA16009

RECOMMENDED HANDLING PROCEDURE

Tuning

The rotor should not be torqued once maximum capacitance is reached.

Soldering

Maximum recommended solder temperature: 275°C.

Washing

Sealing Caps should be secured when washing board assemblies to prevent infusion of cleaning solvents

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