

# Seal-Trim® Trimmers 9810 Series

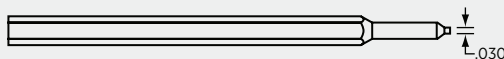


The Seal-Trim® is a high performance Thin-Trim® trimmer ceramic capacitor encapsulated in a polymer housing. This design resists intrusion of dirt, dust, solder flux and cleaning agents during assembly and atmospheric contamination during use. These capacitors offer low drift rates and high Q, making them ideal for higher frequency applications beyond the limits of ordinary ceramic trimmer capacitors. The incorporation of the Knowles square drive tuning mechanism ensures captive non-slip, tamper-proof adjustments that are not subject to backlash problems associated with screwdriver-type adjustment slots.

## CHARACTERISTICS

Rated voltage: 250 VDC (test voltage 500 VDC) for 9810 & 9820

- Insulation resistance:  $>10^4$  M $\Omega$
- Operating temperature range: -55°C to +125°C
- Torque: 0.2 to 2.0 for 9810, 9894 0.05 to 1.0 for 9820
- Vibration: 15g, 10-2000 Hz, MIL-STD-202, Method 204
- Shock: 100g, 6 milliseconds, MIL-STD-202, Method 21
- Setting drift: <1%; <2% for 9816, 9894
- Moisture resistance: MIL-STD-202, Method 106
- Resistant to soldering heat: MIL-STD-202, Method 210, Test C
- Solderability: MIL-STD-202, Method 208
- Resistant to cleaning solvents: MIL-STD-202, Method 215
- RoHS compliant Series



JMC Drive Tuning Tool 4193 for 9810 and 9820 Series

9810 RoHS Series	Housing Size	9810 RoHS Capacitance	Tuning Resolution	Min. Q @ 100 MHz	Drawing Figure
9810	0.270" (6.86mm)	1.0 to 4.5pF	180°	>1000	A
9810-SL					B
9811		2.5 to 10pF		A	
9811-SL				B	
9812		4.0 to 18pF		A	
9812-SL				B	
9813		6.0 to 35pF		A	
9813-SL				B	
9814		7.0 to 40pF		A	
9814-SL				B	
9815		5.0 to 25pF		A	
9815-SL				B	
9816		10.5 to 50pF		A	
9816-SL				B	

FIGURE A

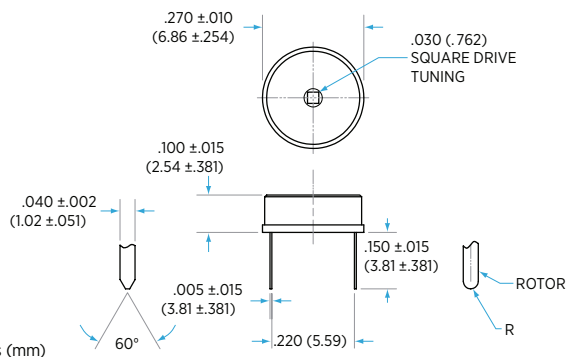
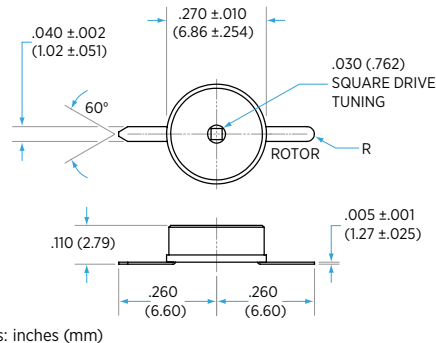


FIGURE B

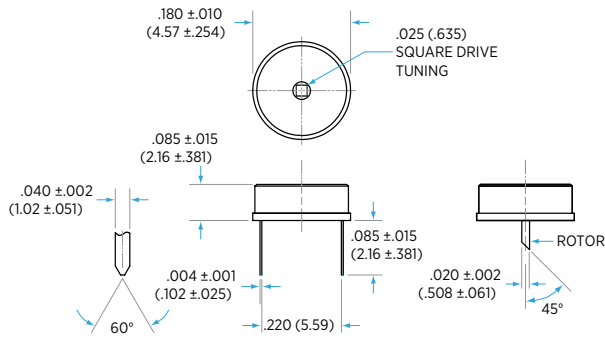


# Seal-Trim® Trimmers

## 9820 Series

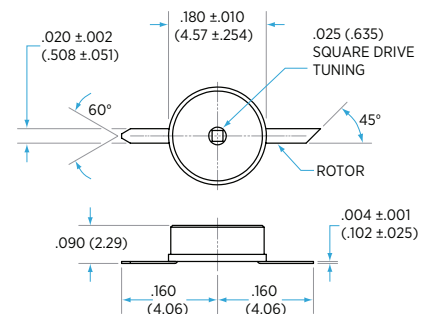
9820 RoHS Series	Housing Size	9820 RoHS Capacitance	Tuning Resolution	Min. Q @ 100 MHz	Drawing Figure
9820	0.180" (4.57mm)	0.5 to 2.5pF	180°	>1000	C
9820-SL	0.180" (4.57mm)				D
9821	0.180" (4.57mm)	1.0 to 5.0pF		>1000	C
9821-SL	0.180" (4.57mm)				D
9822	0.180" (4.57mm)	2.5 to 10pF		>1000	C
9822-SL	0.180" (4.57mm)				D
9826	0.180" (4.57mm)	8.5 to 25pF		>300	C
9826-SL	0.180" (4.57mm)				D
9828	0.180" (4.57mm)	5 to 15pF		>750	C
9828-SL	0.180" (4.57mm)				D
9829	0.180" (4.57mm)	7.5 to 20pF	>500	C	
9829-SL	0.180" (4.57mm)			D	

FIGURE C

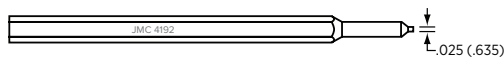


Dimensions: inches (mm)

FIGURE D



Dimensions: inches (mm)

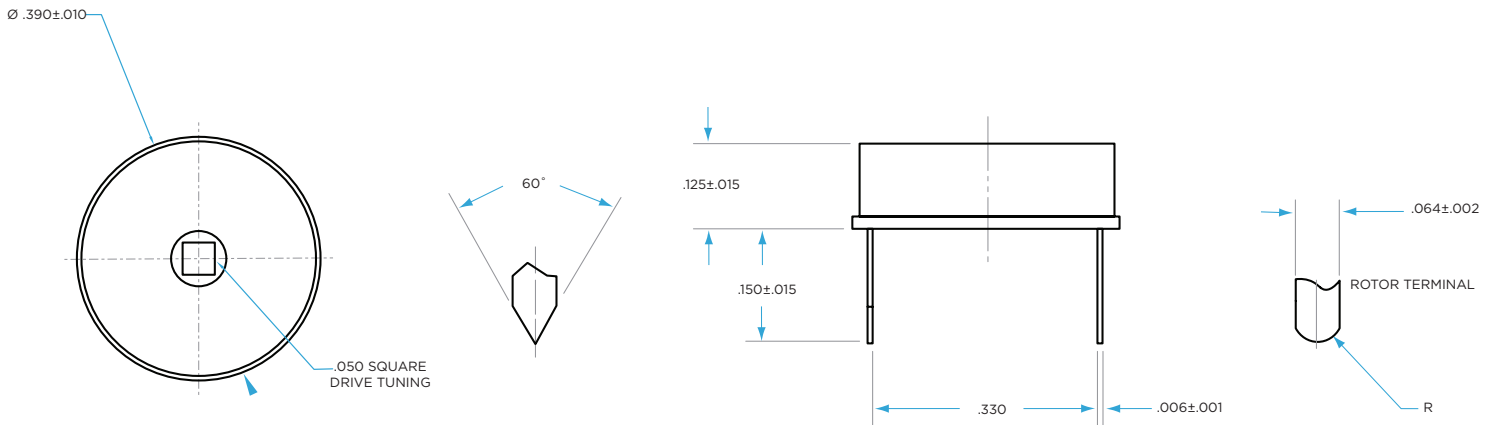


JMC Square Drive Tuning Tool 4192 for 9820 Series

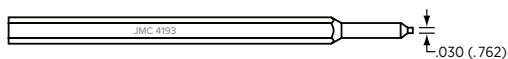
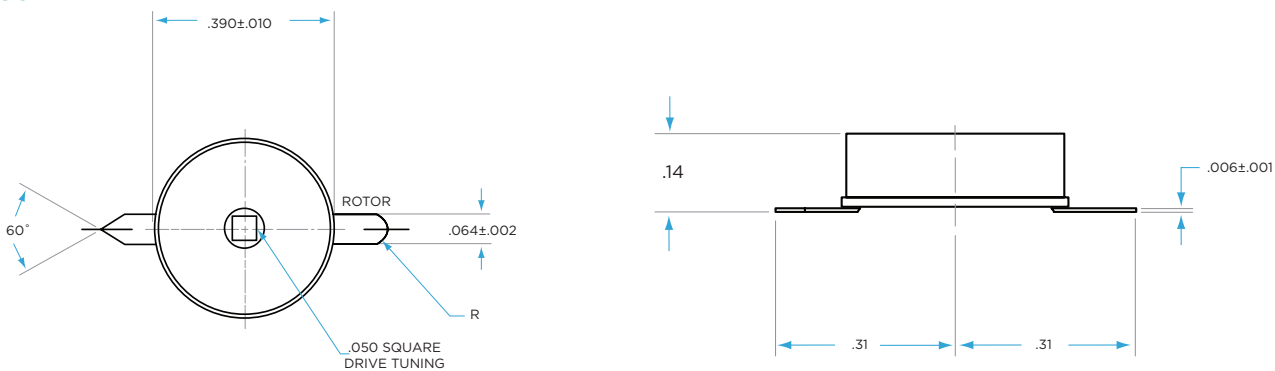
# Seal-Trim® Trimmers 9890 Series

9890 RoHS Series	Housing Size	9890 RoHS Capacitance	Tuning Resolution	Min. Q @ 100 MHz	Drawing Figure
9891	0.390" (9.91mm)	1.65 to 17pF	180°	>3000	E
9891-SL					F
9892		6.0 to 25pF		>2000	E
9892-SL					F
9894		7.5 to 50pF		>1000	E
9894-SL					F
9897		20 to 90pF		>1000	E
9897-SL					F
9898		20 to 100pF		>1000	E
9898-SL					F

**FIGURE E**



**FIGURE F**



JMC Square Drive Tuning Tool 2190 for 9894