

PERFORMANCE SPECIFICATION
 CHARGE AMPLIFIER
 (Model 2947C)

Document Number	Rev	Date	Entered by	Description of Change	Change Accountable Engineer	ECO
EDVPS2947C	B	7/10/23	NAD	Update to PCB Template	KDJ	53914

1.0 DESCRIPTION

This specification describes the ENDEVCO® Model 2947C Calibration Capacitor. It is designed specifically for calibrating charge sensing amplifiers.

When connected in series with a voltage source and a charge amplifier, it readily converts the signal voltage to a precise charge signal

2.0 ELECTRICAL CHARACTERISTICS

- 2.1 Capacitance 1000 pf $\pm$ 1%
 Actual capacitance is measured at 22°C to an accuracy of $\pm$ 1 pf and entered on the individual unit label.

- 2.2 Transfer Function

The transfer function is:

$$Q = EC$$

Where:

Q = Charge, in picocoulombs (pC)

E = Voltage, in volts (V)

C = Capacitance, in picofarads (pF)

Note: If the voltage is expressed in peak units, the charge must be expressed in peak units (pC pK).
 Similarly, volts rms converts to (pC rms).

- 2.3 Voltage Rating 100 Vdc, or Vpk ac maximum
- 2.4 Temperature Coefficient $\pm$ 0.003%/°C Typical

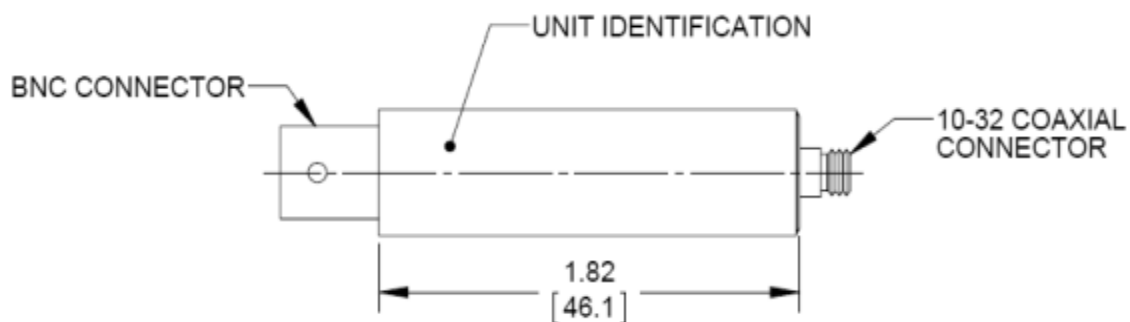
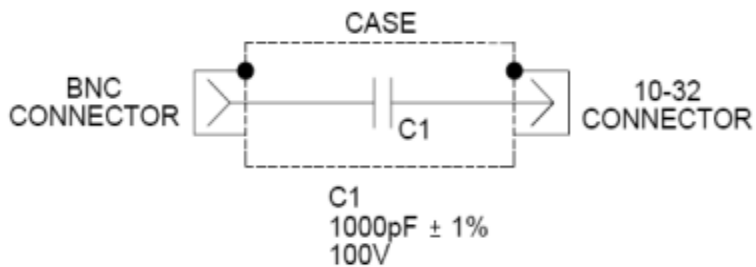
3.0 PHYSICAL

See Outline Drawing on page 2

4.0 ENVIRONMENTAL CHARACTERISTICS

- 4.1 Temperature (Intended Range) 0°C to 50°C
- 4.2 Humidity Epoxy Seal

The unit will with stand 95% relative humidity.



Outline Drawing

STANDARD TOLERANCE	
INCHES	[MILLIMETERS]
.XX = ± .02	[.X = ± .5]
.XXX = ± .010	[.XX = ± .25]

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