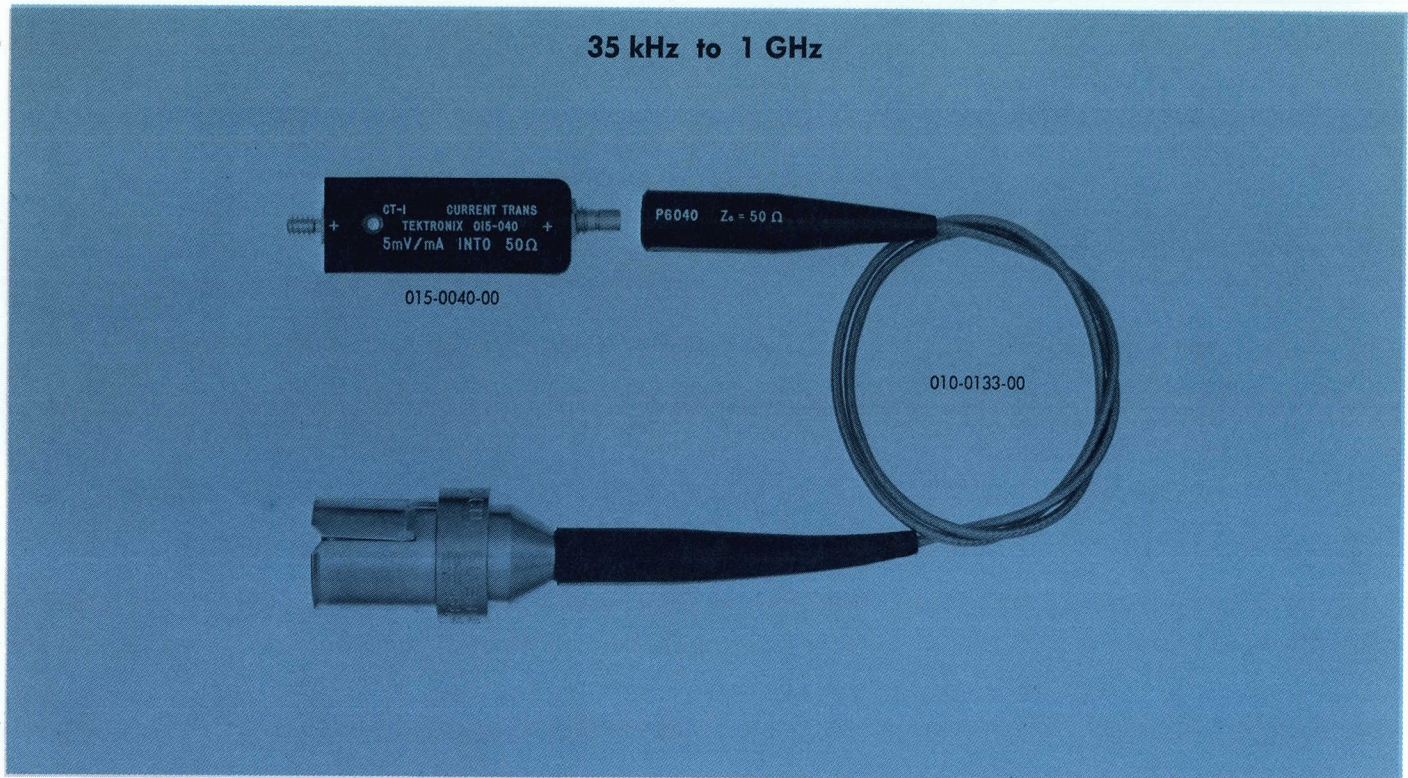


AC Current Probe P6040/CT-1



The P6040/CT-1 Current Probe is designed for use with Tektronix 50- Ω sampling units such as the Tektronix 1S1, 1S2, 3S1, 3S2, 3S5, 3S6 and 7S11 Sampling Plug-In Units. With the use of a 50- Ω termination the P6040/CT-1 can be used with wide-band, non-sampling oscilloscopes for making fast-risetime current measurements.

Several CT-1 current transformers may be placed throughout the circuit and monitored by one or more P6040 Probes. For a longer length probe, additional 50- Ω cable can be used in series with the probe. Conductor sizes up to 0.065 inches in diameter can be monitored.

P6040 PROBE

The P6040 Probe is an inter-connecting cable for the CT-1, used between the transformer and oscilloscope input.

If several CT-1 Transformers are in a circuit, the P6040 Probe can be used to monitor any one of them.

The P6040 can be used with other test-point connectors, such as Amphenol series 27 Sub-Minax or Sealectro Sub-Minature RF.

IMPEDANCE is 50 ohms.

ATTENUATION is 1X.

OUTPUT CONNECTOR is a GR type.

CABLE LENGTH is 18 inches. Additional 50- Ω cable can be used in series with the probe. RG8/U or RG58A/U is recommended for best preservation of the CT-1 Transformer high-frequency response.

CT-1 CURRENT TRANSFORMER

SENSITIVITY is 5mV/mA into a 50-ohm load. Accuracy is better than $\pm 3\%$.

DECAY TIME CONSTANT is 5 μ s, approximated by 1% per 50 ns; limit, 1 μ s.

RISETIME is less than 350 ps.

FREQUENCY RESPONSE is 35 kHz to 1 GHz (30% down points).

INSERTION IMPEDANCE with a 50-ohm termination is 1 ohm shunted by approximately 5 μ H; 2 ohms shunted by approximately 5 μ H without a 50-ohm termination.

CAPACITIVE LOADING to a bare wire passing through the CT-1 transformer is typically 1.5 pF for #14 gauge, 0.6 pF for #20 gauge.

MAXIMUM VOLTAGE OF CIRCUIT UNDER TEST is 1000 V DC.

DIRECT CURRENT reduces the L/R time constant by a factor of 2 at 0.6 A.

PULSE CURRENT RATING is 100 A peak, with an amp-second product of 1 A- μ s. When the A-s product is exceeded, the core saturates reducing the CT-1 output to zero.

RMS CURRENT RATING is 500 mA maximum.

TEMPERATURE RATING is -25° C to $+65^{\circ}$ C.

PHYSICAL DIMENSIONS are $\frac{3}{8} \times \frac{9}{16} \times 1\frac{13}{16}$ inches plus #6-32 $\times \frac{1}{4}$ -inch mounting stud. Net weight is approx 8 ounces.

P6040/CT-1 CURRENT PROBE, order 015-0041-00 .. \$40
Includes instruction manual (070-0375-01).

CT-1 CURRENT TRANSFORMER, order 015-0040-00 . \$21
P6040 PROBE, order 010-0133-00 \$19

OPTIONAL ACCESSORY

GR to BNC, 50- Ω thru-line termination, order 017-0083-00.

U.S. Sales Prices FOB Beaverton, Oregon
Please refer to General Information page