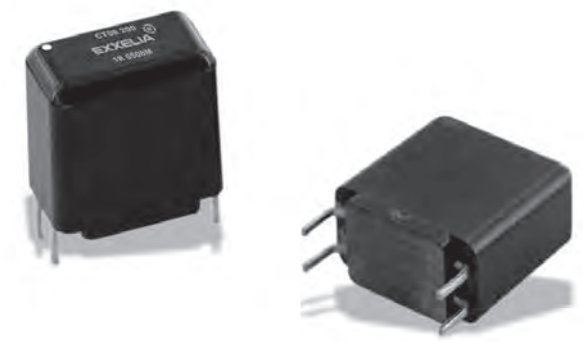
Current Transformer for DC/DC Applications
CT08 200 221 PR

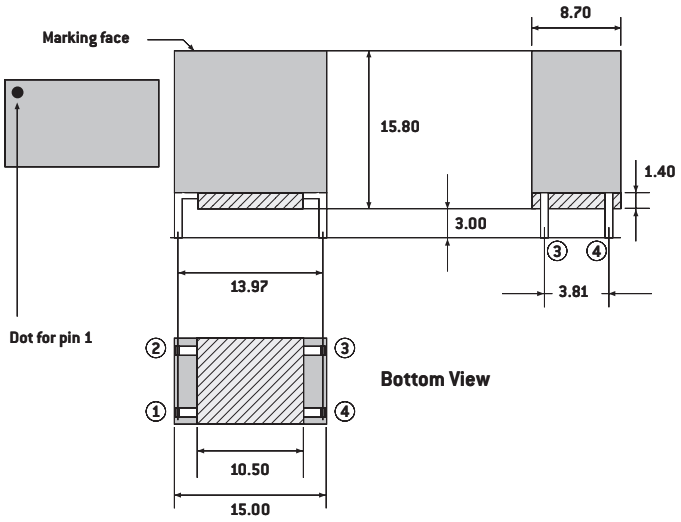


- Designed for DC/DC Converter Applications
- Measurement up to 5.4 A_{RMS} (8 A_{PEAK} - 3.6 max.) from 100 to 200 kHz with 2 % Accuracy
- Applied standards:
  MIL-STD-202, ECSS-Q-70-02
  ESCC-3201, DO-160

Electrical Data (25°C)

ID Code	Accuracy (-40°C / +110°C)	Transformer ratio	Secondary Inductance	Secondary DC Resistance	Insulation
CT08 200 221R	< 2% with R_L = 113Ω theoretical < 2% with R_L = 113Ω at 1% (E96)	V_{OUT} / I_{IN} = 0.56 (Np / Ns = 1: 200)	L_{3-4} = 11.0 mH (± 25%) (100 kHz - 1V_{RMS})	R_{3-4} = 5.8 Ω (± 10%)	500 V_{DC} - 1 min (RI ≥ 100 MΩ) between windings

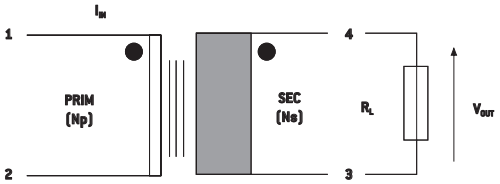
Typical Dimensions (mm)



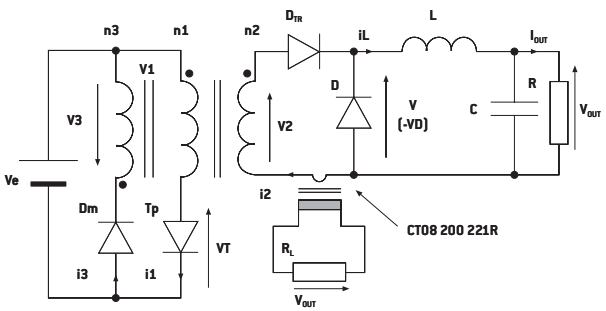
Notes

- The component is dedicated to measure RMS current up to I_{IN} = 5.4 A_{RMS} (8 A_{PEAK} and 3.6 max.) for a wavform of working frequency from 100 to 200 kHz. Image of this current is the voltage (V_{OUT} = 3 V_{RMS} max.) picked on a resistive load R_L = 113 Ω at 1 % (E96 series).
- The component can also make the measurement keeping the same accuracy but with a ratio V_{OUT} / I_{IN} = 1.00. In this case, image of the current is the voltage (vs = 5.4 V_{RMS} max.) picked on a resistive load R_L = 200 Ω at 1 % (E96 series).
- Flammability compliance: UL94V0
- Insulation class (windings): H (180°C)
- Operating temperature: –40°C to +110°C
- Storage temperature: –55°C to +125°C

Connections



Application Schema



CT08 200 221R can be used for measurement of secondary current (i2) of a DC/DC forward converter (3.3 V / 8 A output and 100 kHz working frequency example) for regulation and surveillance operations.

Marking

yyww:
Date code