**Q3:** A circuit supplies a 'square' current waveform, with a peak value of 25 mA and transition times of 10 ns, as shown in FIGURE 3. The ground return conductor has a resistance of 50 mΩ and an inductance of 100 nH.

**(a)** Determine the maximum voltage drop along the ground conductor.

**(b)** Sketch the waveform of the voltage which will appear along the ground conductor.

**(c)** How would you reduce the ground conductor impedance in practical circuits?

