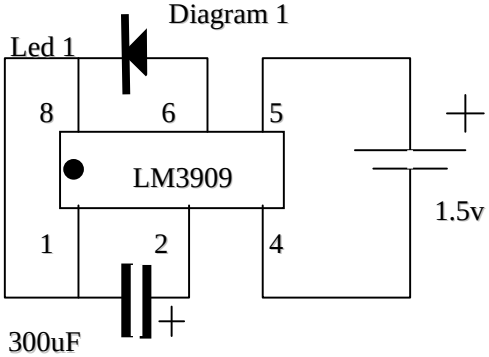
IRREGULAR FEATURE

Shake your tail feathers part 1

One of the small details that can easily be reproduced on model railways is a working taillight. Pickups from each wheel and a red globe will do the trick but it is hardly prototypical, as the light intensity varies with the speed and vanishes altogether when stationary! A second problem arises with some trains that require a flashing red light, but surprise, surprise, in reality, this is the easier to reproduce so that is where I will start.

I found the circuit (Diagram 1) in a Dick Smith catalog, it has been around for quite some time, I have seen one in use it worked well and looked the part.

Diagram 1

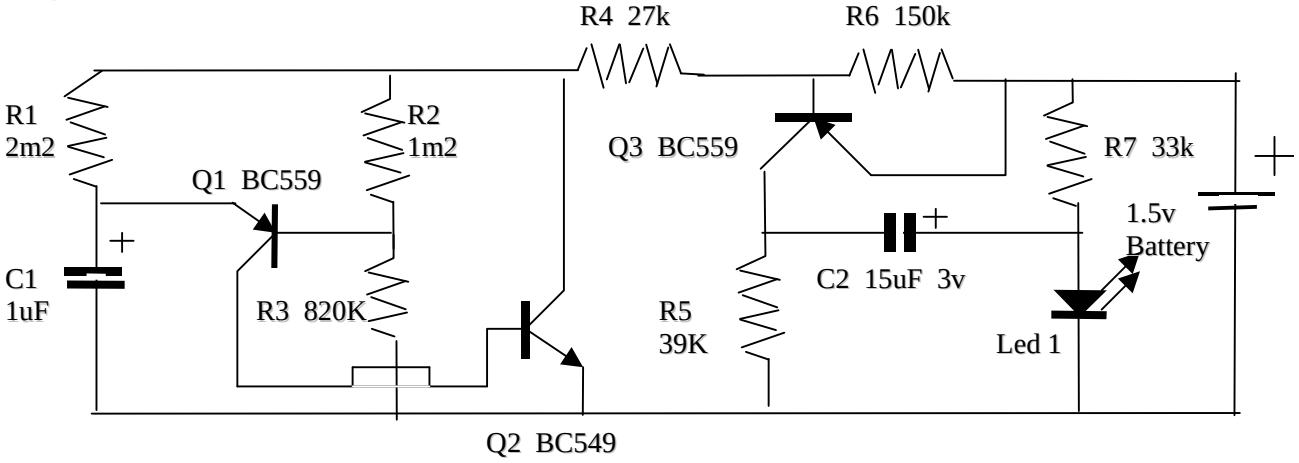


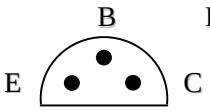
C 1 300uF

The circuit is so simple, requiring only three parts, an IC (integrated circuit) one capacitor and the LED. At around $6 for parts (excluding the battery) it will hardly break the bank fitting it in a wagon or boxcar should be no problem as the battery is the largest part and even these fit into N scale wagons. This circuit uses the timing capacitor for voltage boost and delivers pulses of around two volts to the light emitting diode. No switch is required because the circuit draws so little current (25 uA) and the led will flash happily for several months on one AA cell.

A second circuit that has come to my attention is shown in diagram 2 this works similar to the first but draws much less power. This circuit should run continuously for about one year on an S 76 button cell or around 2 – 3 years on one AA alkaline cell. Cost to build would also be around $6 (at the time of writing, excluding the battery) Next edition (part 2) I will describe how to have the light on all the time

Diagram 2





BC 559 and BC 549
Bottom view

Catch you down the track…Tony Mikolaj.