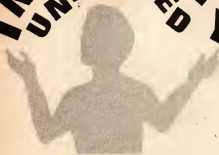


INGENUITY UNLIMITED



A selection of readers' suggested circuits. It should be emphasised that these designs have not been proven by us. They will at any rate stimulate further thought. Any idea published will be awarded payment according to its merits. Why not submit YOUR IDEA?

SIMPLE TOUCH SWITCH

THE circuit shown in Fig. 1 was developed as a simple switch for a hand torch. In basic form it will switch itself off after a given delay dependent on the value of C1.

The three transistors form one effective very high gain device and each conducts in turn when a resistance, in this case a finger-tip, is placed between the "on" touch plates. The bulb lights up when the "on" plate is touched and then slowly goes out at a rate set by C1 once the finger is removed.

An off touch plate could be added as shown dotted so that immediate switching can be effected.

The battery voltage and final transistor selection depends on the bulb used and this in turn depends on the application but in the prototype a BFY51/52 was used. Provided low leakage silicon devices are used no switch is required as the standing current should drop to below $0.5\mu\text{A}$.

The switch S1 is used to keep the torch alight without holding it if this feature is required.

Of course there are other applications for this simple circuit including room lighting and indeed the lamp could be replaced by a triac or relay and be used to give locked switching if required.

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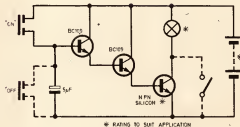


Fig. 1.