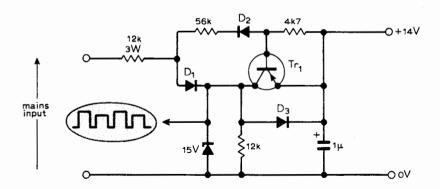
Zero crossing detector

This circuit provides a zero-crossing signal and a d.c. output. Diode D_1 is the only semiconductor which has to withstand the full mains reverse voltage. Positive going half cycles forward bias D_1 , which allows C_1 to charge up to 14V via D_3 . Negative half cycles forward bias D_2 which turns Tr_1 on and

passes current to the output from C_1 . The output is about 1V less on negative half cycles and is given by $(V_{D3} + V_{sat\ Tr1})$ less than V_z . R. J. Torrens, Scientronics.



Huntingdon.