

ABSTRACT

A SWITCH-MODE POWER SUPPLY WITH BURST MODE
STANDBY OPERATION

5 In a switch mode power supply (200), a
first switching transistor (Q2) is coupled to a primary
winding (W_1) of a transformer (T2) for generating pulses of
a switching current (i_2). A secondary winding (W_2) of the
transformer is coupled via a switching diode (D3) to a
10 capacitor (C4) of a control circuit for developing a
control signal (V_4) in the capacitor (C4). The control
signal (V_4) is applied to a mains coupled chopper second
transistor (Q1) for generating and regulating supply
voltages in accordance with pulse width modulation of the
15 control signal (V_4). During standby operation, the first
(Q2) and second (Q1) transistors operate in a burst mode
that is repetitive at a frequency of the AC mains supply
voltage such as 50Hz. In the burst mode operation, during
intervals in which pulses of the switching current occur,
20 the pulse width and peak amplitude of the switching current
pulses progressively increase in accordance with the
waveform of the mains supply voltage to provide a soft
start operation in the standby mode of operation within
each burst group.

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