FIGURE 8-13a   A half-bridge driver can be used in a two-switch forward application, but it requires a simple refresh circuit built around M_1 and U_1.

FIGURE 8-13b   The signal delivered by the additional circuit helps to refresh the bootstrap capacitor despite light-load conditions.

ilt, and the above waveforms

real two-switch forward imple-
r that much from the simulation.
ard converter.

bulky, especially in dc-dc appli-
rters. The half-bridge driver, as
lution to replace the transformer.

elf very well to the implementa-
erminal (node HB in Fig. 8-13a,
on, as in a classical half-bridge
reset time, in other words, when
ates in D_3/D_4. When the core is
turns to a high-impedance state
refresh of the bootstrap capac-
O is quickly reached, disturbing
and M_1 actually builds an inde-
noseconds after M_{lower} has been
he HB pin to ground. No current
essfully tested on a high-voltage
pply, originally working with a
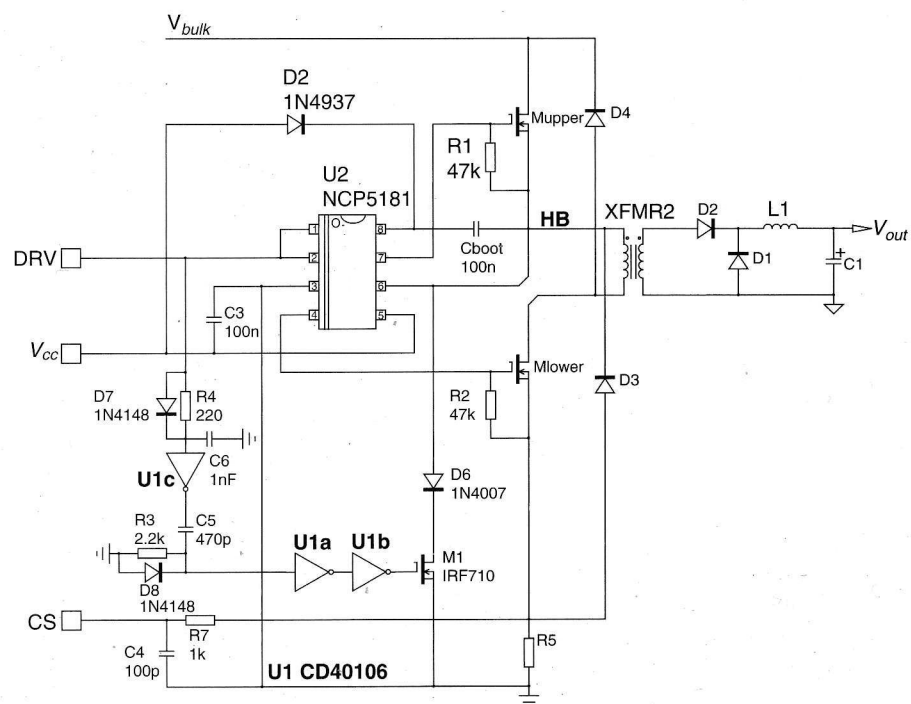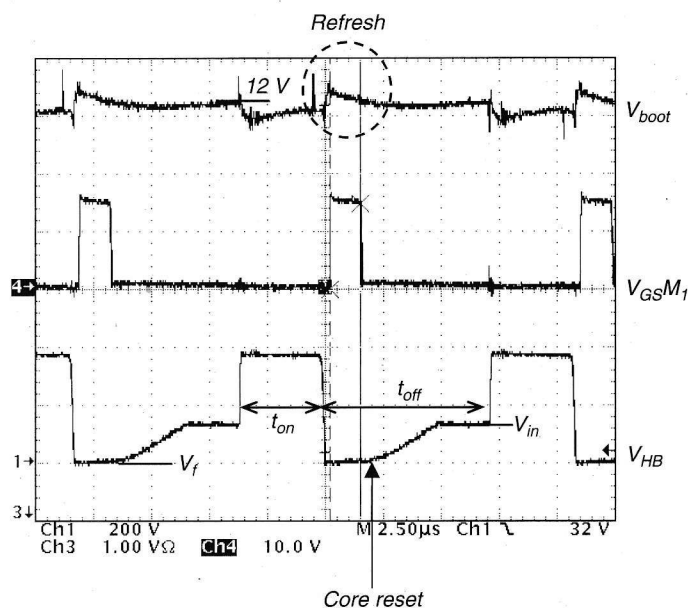t showing the effect of the added