INTEGRATED CIRCUITS

APPLICATION NOTE

AN122 NE5560 Push-pull regulator application

1988 Dec





Philips Semiconductors Application note

NE5560 Push-pull regulator application

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INTRODUCTION

NE/SE5560 Push-Pull Regulator

This application describes the use of the Philips Semiconductors NE/SE5560 adapted to function as a push-pull switched-mode regulator, as shown in Figures 1 and 2.

Input voltage range is +12 to +18V for a nominal output of +30 and -30V at a maximum load current of 1A with an average efficiency of 81%.

Features include feed-forward input compensation, cycle-by-cycle drive current protection and overvoltage sensing, line

regulation (to positive output) <1% for an input range of +13 to +18V and load regulation to positive output of <3% for $\Delta I_L(+)$ of 0.1 to 1 Amp.

The main pulse-width modulator operates to 48kHz with power switching at 24kHz.

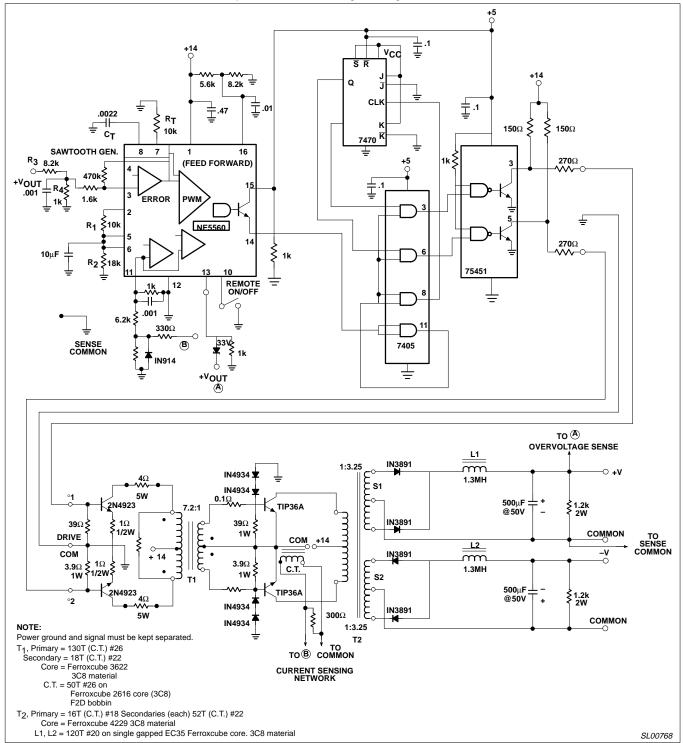


Figure 1. NE/SE5560 Push-Pull Switched-Mode Regulated With CMOS Drive Conversion Logic

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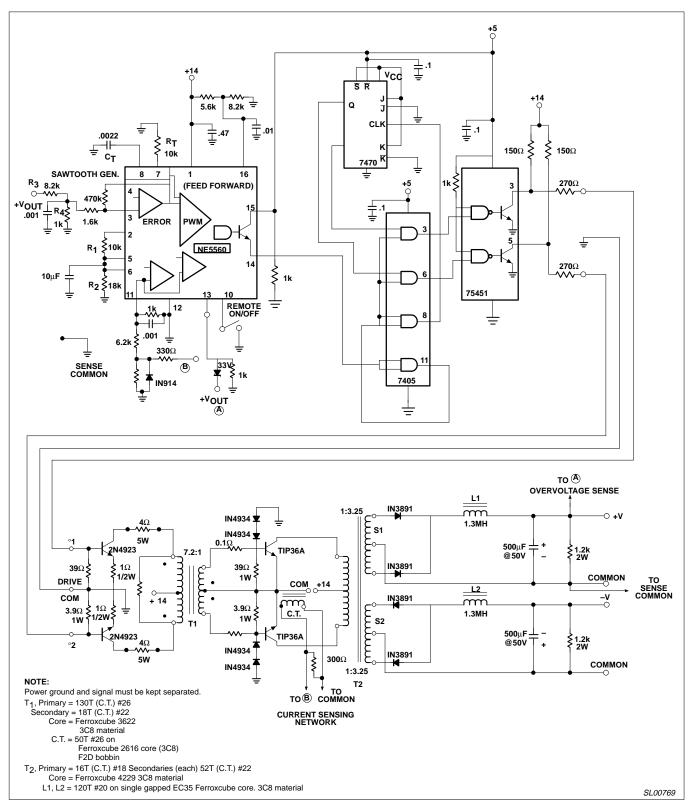


Figure 2. NE/SE5560 Push-Pull Switched-Mode Regulated With TTL Drive Conversion Logic

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