

Don
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PS#7

$\frac{8}{10}$

Plot Voltage vs. Time of the Tx line in RS-232 for sending
the text: "Z#". Assume $\pm 12V$ signal, 53 Kbaud, eight data bits, and
1 stop bit.

$\frac{8}{10}$

Z

#

90 - 01011010

35 - 00100011

Voltage (V)

+12V

Start 0 1 0 1 1 0 1 0 Stop Start 1 1 0 0 0 1 0 0 Stop

Zero volts is

-12V

Time

0 μs

50 μs

100 μs

150 μs

200 μs

250 μs

300 μs

350 μs

$\frac{1}{53,000} s = 18.87 \mu s$ intervals
53,000 Hz

350 μs