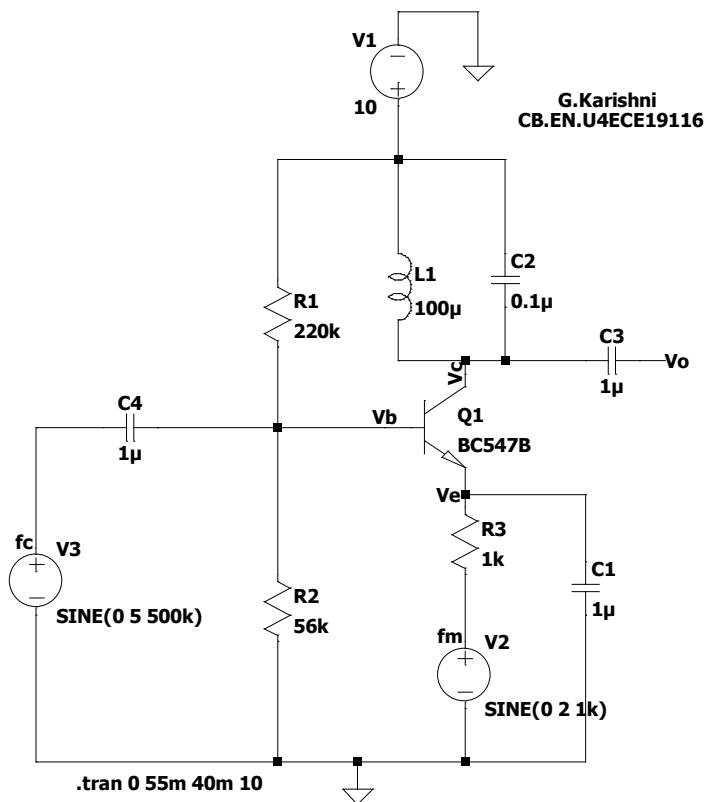


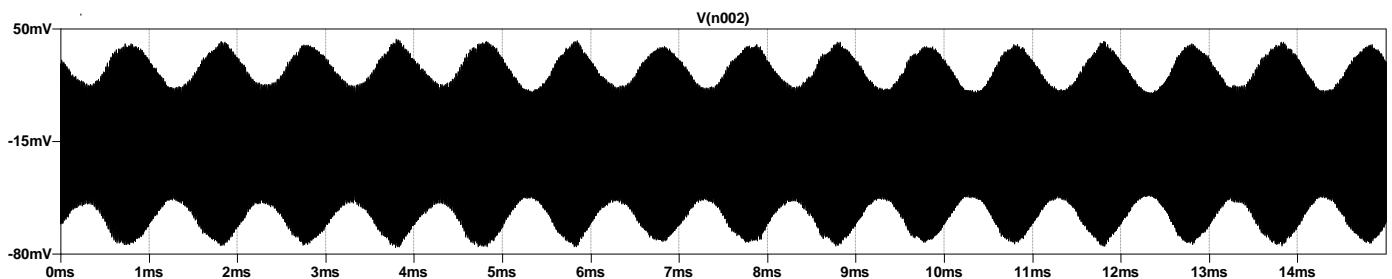
Amplitude modulator circuit

(Carrier signal at base, Message signal at emitter)



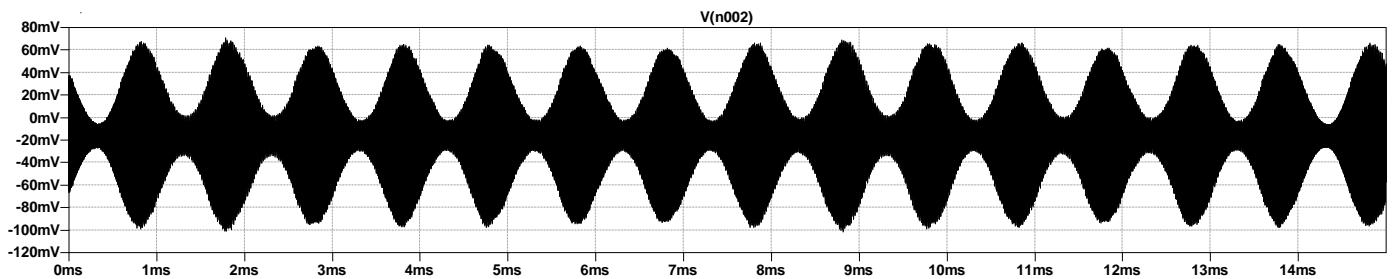
$A_c = 5V$, $A_m = 2V$, Modulation index = 0.4 (less than 1)

Envelope is sinusoidal thus message signal will be extracted successfully



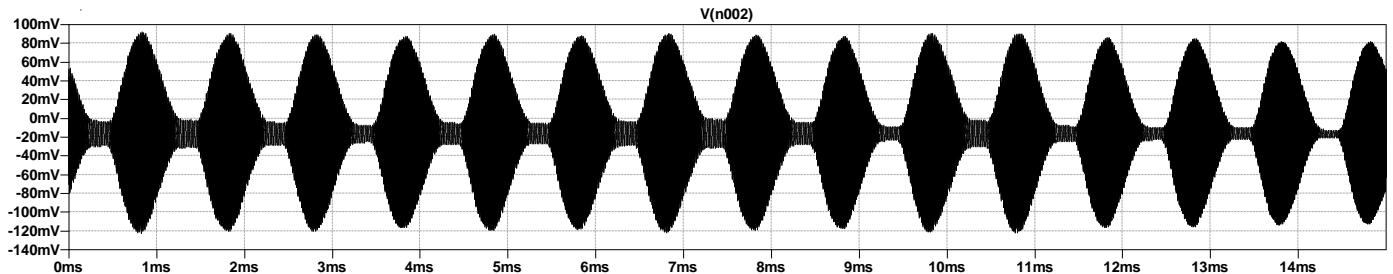
$A_c = 5V$, $A_m = 5V$, Modulation index = 1

Envelope is perfectly sinusoidal thus message signal will be extracted successfully

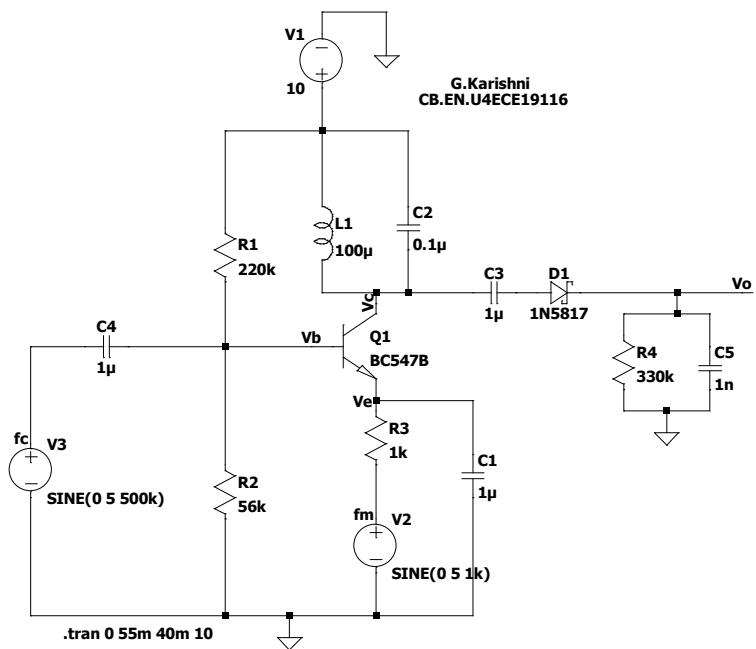


Ac = 5V, Am = 8V, Modulation index = 1.6 (greater than 1)

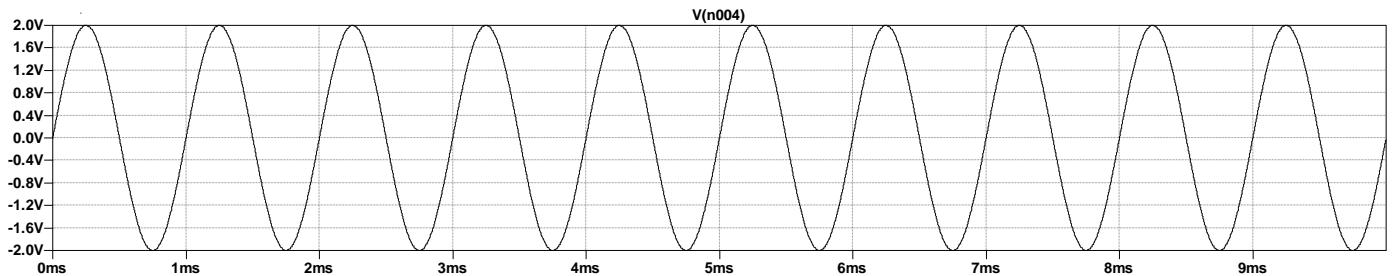
Envelop no more represents sinusoidal form, the message is lost and cannot be retrieved



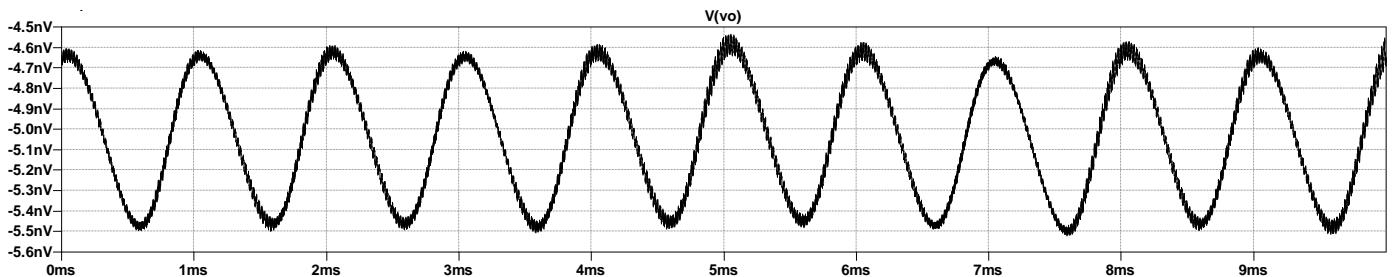
Demodulator circuit



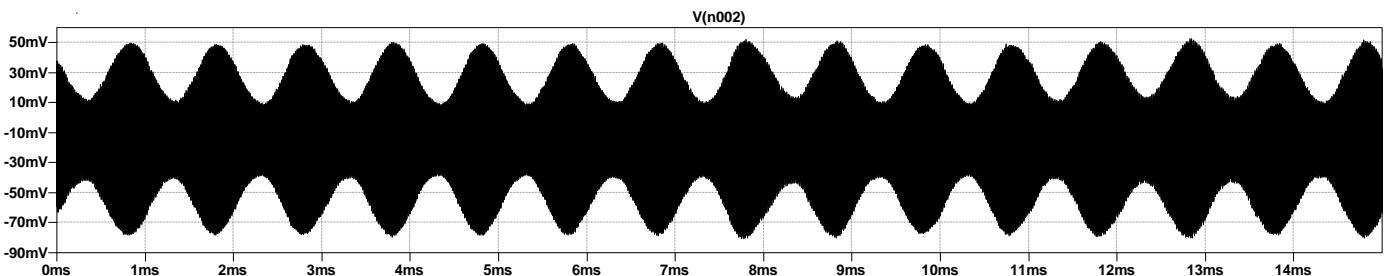
Message Signal



Demodulated Signal

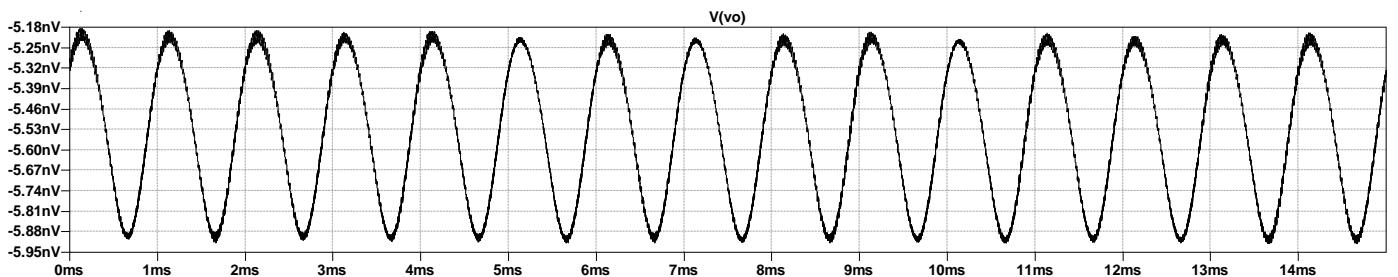


For $Ac = 5V$ and $Am = 3V$



For $fc = 800 \text{ kHz}$ and $fm = 1\text{kHz}$

Demodulated signal



Message signal

