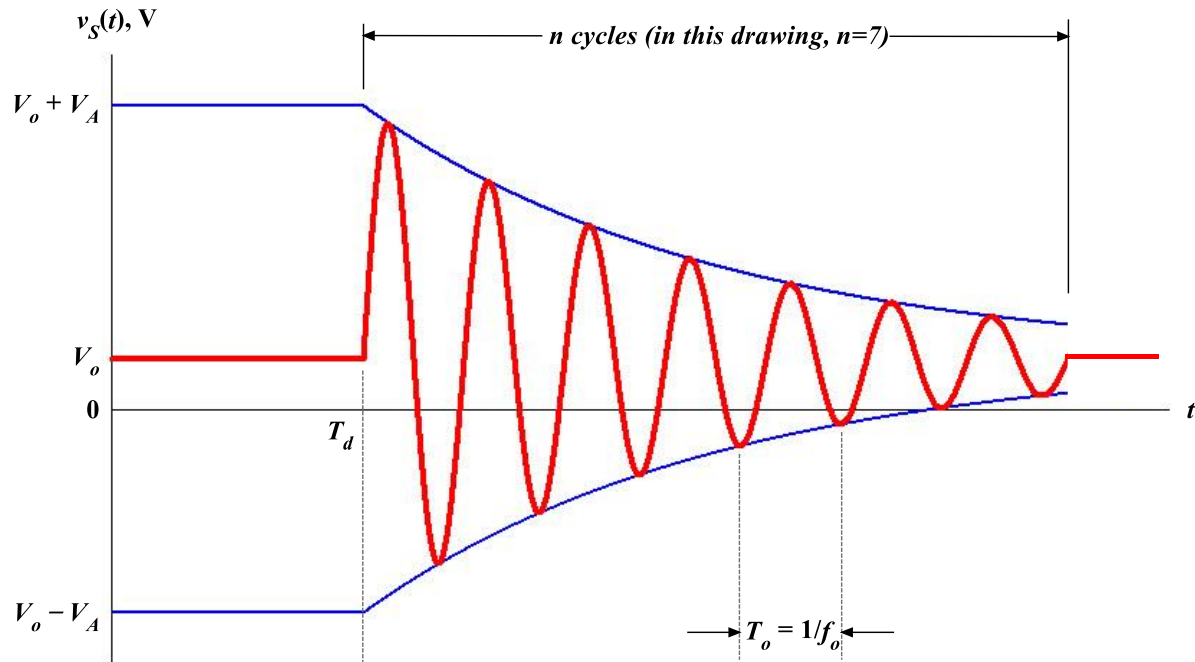


# *Sinusoidal Source for LTspice Transient Analysis*



The above waveform,  $v_s(t) = V_0 + V_A e^{-\alpha(t-T_d)} \sin\{2\pi[f_0(t-T_d) + \theta/360]\}$ , is described by:

Vs N+ N- SINE( $V_0$   $V_A$   $f_0$   $T_d$   $\alpha$   $\theta$   $n$ )

where:

$V_0$  = DC offset voltage (V)

$V_A$  = amplitude (V)

$f_0$  = frequency (Hz)

$T_d$  = delay (s)

$\alpha$  = damping factor ( $s^{-1}$ )

$\theta$  = phase angle ( $^\circ$ )

$n$  = number of cycles generated

Note: Most other versions of SPICE use SIN, rather than SINE.