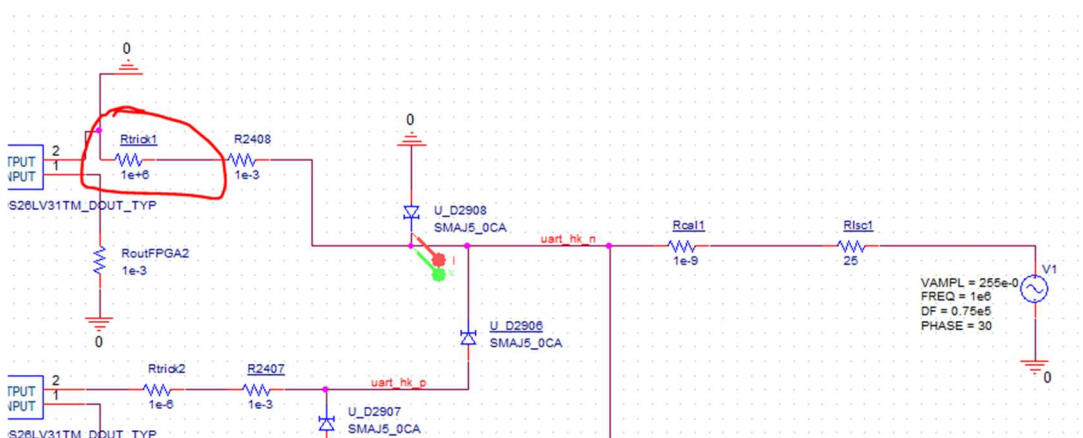


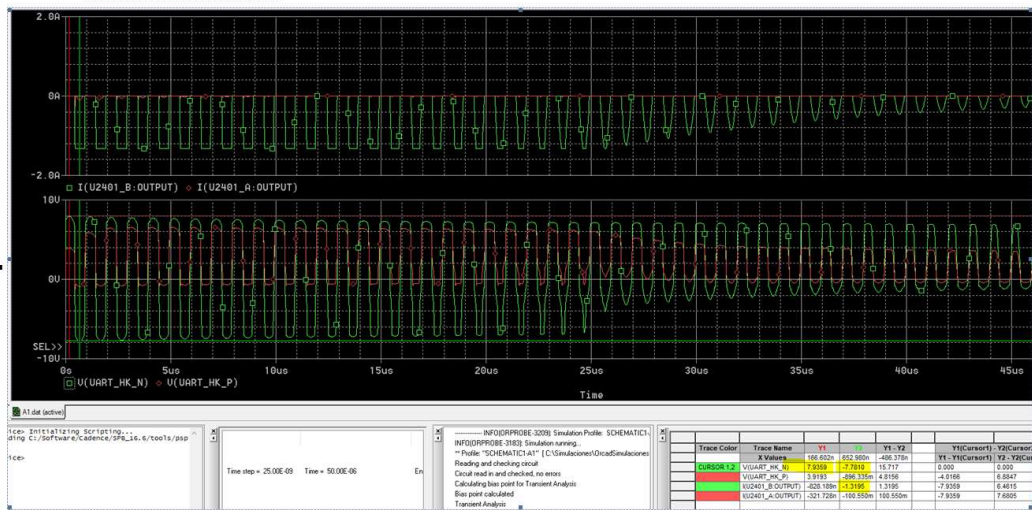
## 2.- CIRCUIT SIMULATION TO ANALYZE POSSIBLE STRESS



We have copied the IBIS model, and when injecting a damped sinusoidal  $V = 250V$ ,  $f = 1MHz$ ,  $I = 10A$ , we observe at the DS26LV31T output a damped sinusoidal current of 1 A during 50us aprox.

In the simulation below, we obtain  $V_{pos}$  and  $V_{neg}$  are out of rating ( $V_{pos} = 7,9$ ,  $V_{neg} = -7,8$ ,  $I_{out} = -1,4 A$ ):

### 8.2.3. → Resultados del ataque.¶



Se incumplen los máximos ratings durante 33 us, sobre todo la  $V_{neg}$  que es de  $-0,5 V$  ya que al ser el diodo bidireccional también conduce para la parte negativa de la onda agresora.¶



during storage or handling to prevent electrostatic damage to the MOS gates.

#### Absolute Maximum Ratings<sup>(1)(2)</sup>

Supply Voltage ( $V_{CC}$ )	-0.5V to +7V
Enable Input Voltage (EN, EN*)	-0.5V to $V_{CC} + 0.5V$
Driver Input Voltage (DI)	-0.5V to $V_{CC} + 0.5V$
Clamp Diode Current	±20 mA
DC Output Current, per pin	±150 mA
Driver Output Voltage (Power Off: DO+, DO-)	-0.5V to +7V
Maximum Package Power Dissipation @+25°C	
D0016A Package	1226 mW
NAD0016A Package	1119 mW
Derate D0016A Package 9.8 mW/°C above +25°C	
Derate NAD0016A Package 7.5 mW/°C above +25°C	
Storage Temperature Range	-65°C to +150°C
Lead Temperature Range Soldering (4 sec.)	+260°C
ESD Ratings (HBM, 1.5 kΩ, 100 pF)	
Driver Outputs	±7 kV
Other Pins	±2.5 kV

(1) "Absolute Maximum Ratings" are those values beyond which the safety of the device cannot be guaranteed. They are not meant to imply that the devices should be operated at these limits. The [Electrical Characteristics](#) specifies conditions of device operation.

- Would the DS26LV31T survive to this transient?
- Can you tell us the output impedance in the high impedance mode?