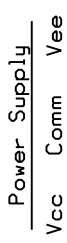
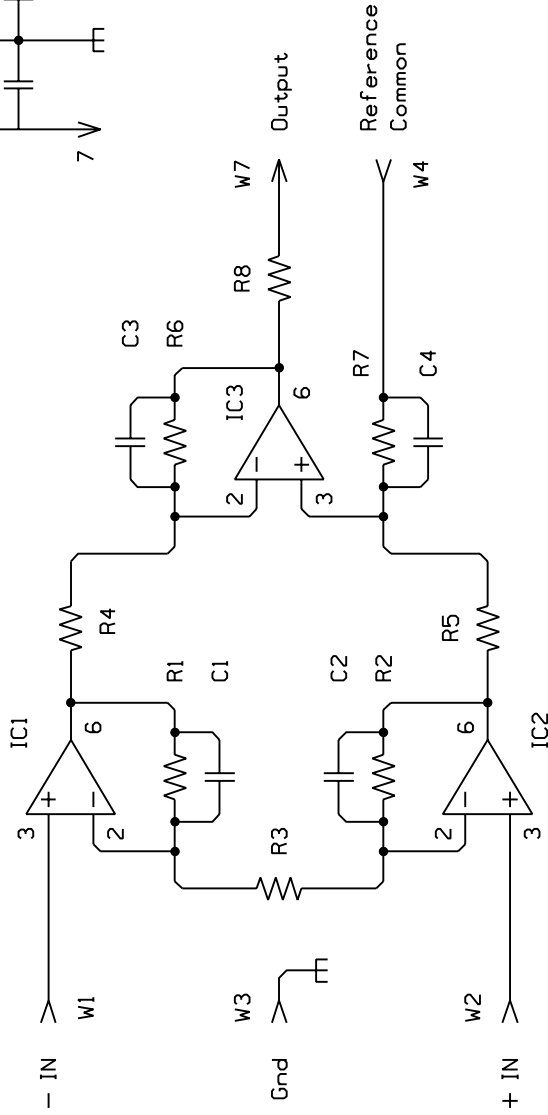
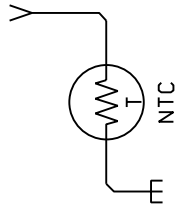


# SET DC Curve Tracer - Instrumentation Amplifier

Note that the unprotected amplifier inputs are sensitive to ESD damage.



Instrument Amplifier  
 Temperature Check



Setup for a Stage  
 Gain of 100  
 $1 + (2 \times 20k/404)$   
 Note: R3 is actually 402 Ohm  
 ---> Gain = 100.50

RC = 20k Ohm 5 pF  
 RC = 0.1 usec. ---> 1.59 MHz

|    |         |    |      |     |            |
|----|---------|----|------|-----|------------|
| R1 | 20k Ohm | C1 | 5 pF | IC1 | OPA827AIDR |
| R2 | 20k Ohm | C2 | 5 pF | IC2 | OPA827AIDR |
| R3 | 404 Ohm | C3 | 5 pF | IC3 | OPA827AIDR |
| R4 | 20k Ohm | C4 | 5 pF |     |            |
| R5 | 20k Ohm |    |      |     |            |
| R6 | 20k Ohm |    |      |     |            |
| R7 | 20k Ohm |    |      |     |            |
| R8 | 100 Ohm |    |      |     |            |

Power Supply Bypass  
 (Not Shown in Detail Above)

|     |        |
|-----|--------|
| C5  | 22 nF  |
| C6  | 22 nF  |
| C7  | 22 nF  |
| C8  | 22 nF  |
| C9  | 100 nF |
| C10 | 100 nF |