Table 3.1

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | Value | Units | Conditions |
| Resistance of the    10kΩ resistor, R1 | 9910 | ohms | with power off and    disconnected from circuit  (measured with ohmmeter) |
| Supply Voltage, V+3.3 | 3.29 | volts | Powered  (measured with voltmeter) |
| Input Voltage, VPE0 | 0 | volts | Powered, but  with switch not pressed  (measured with voltmeter) |
| Resistor current | 0 | mA | Powered, but switch not pressed      I=VPE0/R1 (calculated and  measured with an ammeter) |
| Input Voltage, VPE0 | 3.28 | volts | Powered and  with switch pressed  (measured with voltmeter) |
| Resistor current | 0.56 | mA | Powered and switch pressed      I=VPE0/R1 (calculated and  measured with an ammeter) |

Table 3.2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Row | Parameter | Value | Units | Conditions |
| 1 | Resistance of the    220Ω resistor, R10 | 219 | ohms | with power off and    disconnected from circuit  (measured with ohmmeter) |
| 2 | +5 V power supply  *V+5* | 5.10 | volts | (measured with voltmeter, *notice that the +5V power is not exactly +5 volts*) |
| 3 | TM4C123 Output, *VPE1*    input to 7406 | 3.28 | volts | with **PE1** = 0  (measured with voltmeter) |
| 4 | 7406 Output, *Vk-*    LED k- | 3.68 | volts | with **PE1** = 0  (measured with voltmeter) |
| 5 | LED a+, *Va+*    Bottom side of R10 | 5.10 | volts | with **PE1** = 0  (measured with voltmeter) |
| 6 | LED voltage | 1.42 | volts | calculated as *Va+*- *Vk-* |
| 7 | LED current | .142  .20 | mA | calculated as (*V+5*- *Va+*)/R10  and  measured with an ammeter |
| 8 | TM4C123 Output, *VPE1*`    input to 7406 | 0 | volts | with **PE1** = 1  (measured with voltmeter) |
| 9 | 7406 Output, *Vk-*    LED k- | 0.13 | volts | with **PE1** = 1  (measured with voltmeter) |
| 10 | LED a+, *Va+*    Bottom side of R10 | 2.07 | volts | with **PE1** = 1  (measured with voltmeter) |
| 11 | LED voltage | 1.94 | volts | calculated as *Va+*- *Vk-* |
| 12 | LED current | .194 | mA | calculated as (*V+5*- *Va+*)/R10  and  measured with an ammeter |
| .2 |