**Physics 112 Data Sheet 1**

**Experiment One- Linear and Nonlinear Elements**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Carbon Resistor | | Si Diode | | Light bulb (low currents) | | Light Bulb (high currents) | |
| V (Volts) | I (mA) | V (Volts) | I (mA) | V (Volts) | I (mA) | V (Volts) | I (mA) |
| 0.2 |  | 0.4 |  | 0.010 |  | 0.5 |  |
| 0.4 |  | 0.45 |  | 0.02 |  | 1.0 |  |
| 0.6 |  | 0.50 |  | 0.03 |  | 1.5 |  |
| 0.8 |  | 0.53 |  | 0.04 |  | 2.0 |  |
| 1.0 |  | 0.55 |  | 0.05 |  | 2.5 |  |
| 1.2 |  | 0.57 |  | 0.06 |  | 3.0 |  |
| 1.5 |  | 0.60 |  |  |  |  |  |
| 1.6 |  | 0.62 |  |  |  |  |  |
| 1.7 |  | 0.64 |  |  |  |  |  |
| 1.8 |  | 0.66 |  |  |  |  |  |
| 1.9 |  | 0.68 |  |  |  |  |  |
| 2.0 |  | 0.70 |  |  |  |  |  |

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