

Reading Datasheets

Winter Workshop

Students' Technical Activities Body
(STAB)

What does it tell you?

- the typical device performance
- minimum and maximum requirements and characteristics
- what you can do to the device without harming it
- suggested uses and hints

- You don't have to understand everything in a datasheet.
- There's a lot of information that might not be of any use to you.
- Skill lies in finding the right information in a datasheet
- Make reading datasheets a habit!

Common fields in a datasheet

- General Description
- Features
- Applications
- Schematic Diagrams
- Pin Configurations
- Internal Diagrams
- Ordering Information
- Packaging Information

- Electrical Characteristics
- Thermal Characteristics
- Absolute Maximum Ratings

Where to get the Datasheet from?

- Internet!
- Google the component name/number and you'll most likely find its datasheet online

Useful Datasheets

- Common ICs
 - IC555 – Timer
 - LM124 – Operational Amplifiers
 - 54150 – Data Selector/Multiplexer
- Motor Drivers
 - L293D
 - L298
 - ULN2003

- Regulators
 - 7805
 - LM3940
- Sensors
 - Sharp GP2Y0A02YK0F
 - TSOP1738

- Microcontroller
 - Atmega328
 - Atmega32
- Other sensors
 - MMA7361L – accelerometer IC
 - ADXL210 – accelerometer IC
 - ADXRS300 – gyroscope IC