



## Staff Power Characterization Engineer

**Type:** Full-time  
**Reports To:** Senior Manager, Modeling and Characterization  
**Location:** San Diego, California

### Job Description and Responsibilities

As a Staff Power Characterization Engineer, you will drive and support projects in power semiconductor and IC electrical characterization with major focus on electrical characterization of power semiconductor devices in a small-company, fast-moving environment. Duties will include the following:

- Lead and/or support development and implementation of equipment and software in a lab environment to characterize power semiconductor devices in an efficient manner
- Support characterization for the modeling group to create custom compact models and behavioral models for integrated BCD and UHV processes. Support the Modeling group in answering questions from Design about product behavior, driving continuous improvement of the capability of models to predict product behavior
- Coordinate with Modeling group and Device Development group, understanding test structure layout and goals of the test structures so the characterization helps achieve those goals
- Drive the development of novel test solutions focused on the characterization of novel power semiconductor devices pushing the envelope of product performance
- Train and mentor junior engineers and/or technicians in the Characterization group
- Support quick resolution of production yield or performance problems as needed

Acceptable candidates must be self-motivated, disciplined and able to work well in a fast-paced, multifunctional environment.

### Required Skills and Experience

- Minimum M.S. in Electrical Engineering, Physics, Materials Science, Solid State Electronics, or equivalent
- 8 years of experience in electrically characterizing devices in integrated BCD processes. Experience with integrated UHV processes preferred. Experience with compound semiconductor devices is a plus
- Strong experience required in labs specifying and setting up equipment and software for semiconductor power device data acquisition including experience automating data acquisition to improve efficiency. Experience with Labview and/or scripting is a strong plus. Experience with IC-CAP or automating data analysis is a plus
- Strong experience with power-device-specific characterization (Rdson, Qg, UIS, reverse recovery, SOA, etc.) Strong experience with wafer probing, both with probe cards and needle probes
- Experience with test structure layout preferred
- Creativity and good problem-solving and communication skills. Strong desire to get to root cause
- Ability to mentor and/or manage junior engineers and technicians. Ability to work well in a team-oriented environment