

Introduction to Energy Dissipation Tester

The Energy Dissipation Testers are a family of Testers which generate a set energy (volts x current x time) and force the device under test (DUT) to absorb it.

The consequences of this energy absorption are measured and the results displayed as required.

Two basic types are made available;

Energy absorption whilst conducting. These include the many types of Thermal Resistance Testers, FBSOA Testers etc. and

Energy absorption whilst turned off. These include the Unclamped Inductive Load tests for p-fets, the Clamped Inductive Load tests for IGBT, the Avalanche Energy tests for diodes, the Sustaining Voltage tests for bipolars and so on.

The following pages give the "Introductions" to three Testers;

[Thermal Resistance Tester type PDA-4:6](#) used for diodes and

most 3 terminal devices. It can dissipate power to 20Volts and

19.9Amps for up to 100 secs.

[Thermal Resistance Tester type TRA-2:7](#) used for diodes and

similar devices. Uses an AC current generator and a sampling

technique to calculate true power dissipation.

[Energy Absorption Tester type IST-1:18](#) used for energy testing of

most device types.

All are PC controlled and supplied with a "Windows" based software package.

Challenge Innovations have been making all types of energy absorption Testers for many years. The above three examples give a general idea of the types of Tester available. Please contact Challenge Innovations if a special example is required.