Power Tester 1500A—Accelerated Testing and Failure Diagnosis of High-Power Semiconductors

Change of the junction temperature during one cycle as the function of cycles (using control

The MicReD Power Tester 1500A supports automatic testing and diagnosis of possible failure causes of power components on the manufacturing floor. The energy demands of both consumer and industrial electronic systems are increasing, and power electronics component suppliers as well as OEMs are faced with the challenge of providing the highly reliable systems needed for aviation, electric vehicles, trains, power generation, and reusable energy production. The Power Tester 1500A can power the modules through tens of thousands, potentially millions, of cycles while simultaneously providing real-time failure-in-progress diagnosis.

REAL-TIME FAILURE

The Mentor Graphics MicReD Power Tester 1500A is the only machine built for manufacturing as well as laboratory environments that does automated power cycling while producing analytical data for real-time failure-in-progress diagnosis. It's designed to perform lifetime testing to test the reliability of applications that use power electronic modules.

The Power Tester 1500A is the industrial implementation of the MicReD T3Ster® thermal measurement and characterization technology to enhance the capabilities from electronic parts, LEDs, and systems to high power electronics. The Power Tester 1500A is unique in that it provides fully automated power testing and cycling at the same time, on the same machine, without having to remove the device under test during the process. A simple touch-screen interface allows a technician to use it on the manufacturing floor and/or failure analysis engineer to use it in the lab.

Mentor Graphics®