



# DARRAH'S Portable Power Semiconductor Tester

DARRAH ELECTRIC COMPANY offers the **DST5000 Portable Power Semiconductor Tester** that accurately tests the functionality of all types of **Diodes, SCR Thyristors**, asymmetric and symmetric type **GTO Thyristors**, discrete or packaged Darlington **Transistors**, and all styles of **IGBTs** up to 5kV. All types of packaging can be tested, including stud, module, press pack, or hockey puck style.

Model: DST5000

## Performs Three Functional Tests:

- **Gating** – Adjustable from 0 to 12 Volts, 2 Amp supply for Gating or Firing controlled devices. Digital Voltmeter & Ammeter indicate actual gate voltage ( $V_{GT}$ ) and current ( $I_{GT}$ ) when gated.
- **Forward Blocking** – Adjustable from 0 to 5000 Volts. A digital Ammeter indicates leakage current at semiconductor voltage rating.
- **Reverse Blocking** – Adjustable from 0 to 5000 Volts. A digital Ammeter indicates leakage current at semiconductor voltage rating.



## Benefits

- Quick & Accurate Results – Takes all the guesswork out of testing semiconductors.
- Marginal components are easily identified during scheduled service in place, resulting in less unscheduled down time and unnecessary cost.
- Test semiconductors before they are installed to ensure they are functional, while establishing a baseline for future reference.
- Perform on-receipt inspection to confirm components meet specifications.

## Features

- Compact, Portable, and Easy to Use.
- Heavy Duty Composite Case – Designed for portability & to protect the tester.
- Dimensions: 8.5”H x 16”W x 20”L Weight: 36 lbs
- High Quality Digital LED Meters – Indicate forward and reverse leakage current, voltage, gate voltage and current for triggering.
- User-Friendly Operating Instructions – Simple yet comprehensive instructions for test on all semiconductors in discrete or module packages.

## Operation

- The tester has two specific test functions – High Voltage and Gate. Simply toggle the switch to select which function you require. Indicating lights will illuminate to show which test is selected.
- Select a maximum voltage level appropriate to the semiconductor being tested – either 2500 Volts or 5000 Volts VRRM and VDRM.
- Select a maximum leakage current appropriate to the semiconductor being tested – either 10 mA or 100 mA.

## Safety

- All tests require the operator to have both hands on the tester.
- The tester is adequately grounded and has a time out feature that stops the high voltage test after 60 seconds.
- Zero voltage start feature for operator safety.

## Specifications

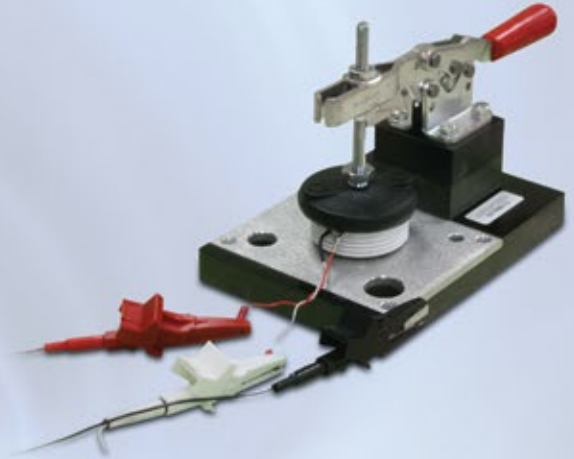
- Electrical specifications apply for an operating temperature range of 32 to 104 degrees F (0 to 40 degrees C), relative humidity up to 90%.

## AC Input

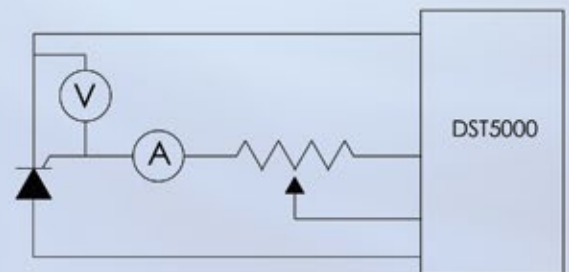
- 115 Volts, 1 Phase, 50/60 Hertz, 2 Amp



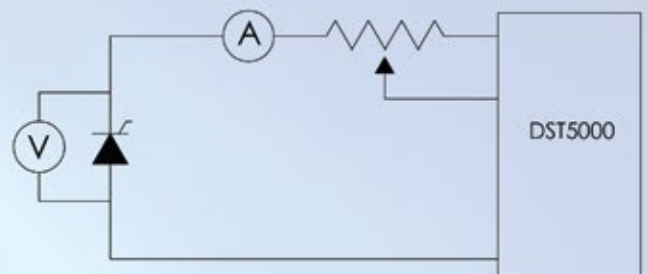
## Press Pack Compression Clamp



- **Test the device in your system or remove it for bench testing** - 6 Foot Testing Leads are provided. Test semiconductors that are removed from the heatsink and placed in the compression clamp.
- **Puck Compression Clamp** - Tester comes with a high-quality clamp, adjustable from 38mm to 125mm silicon sizes.



Gate Test



Forward & Reverse Blocking Test



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