

DARRAH'S

Portable Power Semiconductor Tester



DARRAH ELECTRIC COMPANY offers a Portable Power Semiconductor Tester that accurately tests **Silicon Diodes, SCR and GTO Thyristors, Transistors and IGBT's**.

Darrah's Model AL3300 Tester applies actual line voltages and gate fires turn on devices. The tester comes complete with built in disc or puck compression clamp and two sets of test leads.

- Marginal components are easily identified during scheduled service, translating into less unscheduled down-time.
- Tests semiconductors before they are being installed to ensure that they are functional, and establish base line for future reference.
- Perform receiving inspection to confirm components meet specifications.

The AL3300 performs three very important operational tests:

- Adjustable zero to 3300 Volt A.C. for testing **Forward Blocking**. An LED Ammeter indicates leakage current (IDRM) at semiconductor voltage rating.
- Adjustable zero to 3300 Volt A.C. for testing **Reverse Blocking**. An LED Ammeter indicates leakage current (IRRM) at semiconductor voltage rating
- Adjustable voltage for **Gating or Firing** devices. LED DC Voltmeter indicates actual gate trigger voltage (VGT). An LED D.C. Ammeter indicates actual gate current (IGT).



FEATURES

- Components are tested for forward and reverse leakage current at voltages up to 3300V.
- Gate Voltage and Current to trigger is tested and displayed on the panel meters.
- Short Circuit Current is limited to 20mA for operator safety.
- Oscilloscope jack provides the ability to observe the Voltage/Current curve on a X-Y oscilloscope.
- Tests components according to JEDEC JC-22 and EIA RS397 test standards.
- 36 inch testing leads are provided to test semiconductors removed from the heatsink and used with the tester's built in compression clamp.
- 6 foot testing leads are provided to test semiconductors still located and mounted in the heatsink of equipment.
- Easy to follow operating instructions for tests on all semi conductors in discrete or module packages.



SPECIFICATIONS

Electrical specifications apply for an operating temperature range of 15 to 120 degrees F, (-10 to 50 degrees C), relative humidity up to 80%.

Input Voltage

110/115 Volts, 1 Phase, 50/60 Hertz, 1 Amp
 - or -
 220 Volts, 1 Phase, 50/60 Hertz, 1 Amp
Please specify when ordering.

High Voltage Mode (PRV/PFV)

Peak Reverse and Forward Voltage	0 - 3300 VAC
Peak Leakage Current @ 3m ohm	1 mA
Short Curcuit Current	20 mA
Test Duration	Max 30 seconds

Gate Mode

Gate Voltage	0-5 VDC, 10 ohm source impedance
Anode Voltage	18 V, 10 ohm, 1/2 sine wave

Dimensions

8" H x 14" W x 20" L
 Weight: 20 lbs

Panel Meters

PRV/PFV Mode

Peak Anode Voltage	0 - 3300 VAC
Peak Leakage Current	0 - 19.99 mA

Gate Mode

Gate Voltage	0 - 19.99 V
Gate Current	0 - 1999 mA

Oscilloscope Input

PRV/PFV Mode

X-axis (voltage) sensitivity	2.0 V/div=1000 V/div
Y-axis (current) sensitivity	2.0 V/div=10 mA/div

Gate Mode (Anode Voltage/Current Curve)

X-axis (voltage) sensitivity	2.0 V/div=10 V/div
Y-axis (current) sensitivity	2.0 V/div=1 A/div



DARRAH ELECTRIC COMPANY

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