# Atlas DCA

semiconductor component analyser

### Model: DCA55



automatic lead identification

arning: avoid

chargelvoltages

**PRODUCT BRIEF** 

atlas DCA model DCA5

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#### **Features**

- Connect any way round.
- Automatic component type identification.
- Automatic pinout identification.
- Transistor gain measurement.
- MOSFET gate threshold measurement.
- PN junction characteristics measurements.
- Leakage current measurement.
- Auto power on and power off.
- Ultra-slim and compact design.

#### **Supported Parts**

- Transistors (Germanium and Silicon).
- Darlingtons.
- MOSFETs.

NPN Silicon

RED GREEN BLUE

Base Emit Coll Current gain

> est current =2.50mA Base-Emitter

JBE=0.71U

est current IB=4.58mA

Ic=0.00mA

.eakage curren

Transistor

 $H_{FE} = 117$ 

• Junction FETs (only gate pin identified).

Example Display for a typical transistor:

Here, the Atlas DCA has

detected an NPN transistor.

The pinout is then identified.

DC current gain is measured

at a collector current of 2.5mA.

The Base-Emitter voltage

Finally, the collector

leakage is measured.

drop is measured.

- Low power thyristors and triacs.
- LEDs (including bicolour types).
- Diodes and diode networks.

## Convenient Accurate

Smart

#### **Technical Specifications**

Parameter	Minimum	Typical	Maximum	Notes
Peak test current into S/C	-5.5mA		5.5mA	1
Peak test voltage across O/C	-5.1V		5.1V	1
Measurable transistor gain range (hFE)	4		20000	2
Transistor gain accuracy (hFE<1000)	-3%-5 hFE		+3%+5 hFE	2,9
Transistor V <sub>CEO</sub>	2.0V		3.0V	2
Transistor VBE accuracy	-2%-20mV		+2%+20mV	9
V <sub>BE</sub> for Darlington identification		1.0V		3
V <sub>BE</sub> for Darlington identification (shunted)		0.8V		4
Acceptable transistor VBE			1.80V	
Base-emitter shunt resistance threshold		60kΩ		
Transistor collector-emitter test current	2.45mA	2.50mA	2.55mA	
Acceptable transistor collector leakage		1.25mA		6
MOSFET gate threshold range	0.1V		5.0V	5
MOSFET gate threshold accuracy	-2%-20mV		+2%+20mV	5
MOSFET drain-source test current	2.45mA	2.50mA	2.55mA	
MOSFET minimum gate resistance		8kΩ		
Thyristor/Triac gate test current		4.5mA		7
Thyristor/Triac load test current		5.0mA		
Diode test current			5.0mA	
Diode forward voltage accuracy	-2%-20mV		+2%+20mV	
V <sub>F</sub> for LED identification		1.50V		
Battery type	GP23A 12V Alkaline			
Battery voltage range	7.50V	12V		
Battery voltage warning threshold		8.25V		
Inactivity power-down period		30 secs		
Dimensions (excluding test leads)	103 x 70 x 20 mm			
Operating temperature range	0°C		50°C	8
<ol> <li>Between any pair of test clips.</li> <li>Collector current of 2.50mA.</li> <li>Resistance across reverse biased base-emitter &lt; /li&gt; </li></ol>	<ol> <li>7. Th</li> <li>60kΩ.</li> <li>8. Su</li> </ol>	yristor quadra	r voltage of 5.0V. nt I, Triac quadran table LCD visibilit	

9. BJT with no shunt resistors

- Collector current of 2.50mA. Resistance across reverse biased base-emitter  $> 60 k\Omega$ .
- Resistance across reverse biased base-emitter < 60kΩ.</li>
   Drain-source current of 2.50mA.

Please note that specifications of our products are subject to change without notice. E&OE. 02/13

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