

Heating measurement

Instrument 1: Infraray gun TES 1327K epsilon 0.95

Instrument 2: Yokogawa uR1800

Power Supply: GwINSTEK PSB-2400L2

Applied current: 12A

Date: Apr. 08, 2019

Location: Speed Tech Corp., 3rd floor. National Test Lab. Grade II

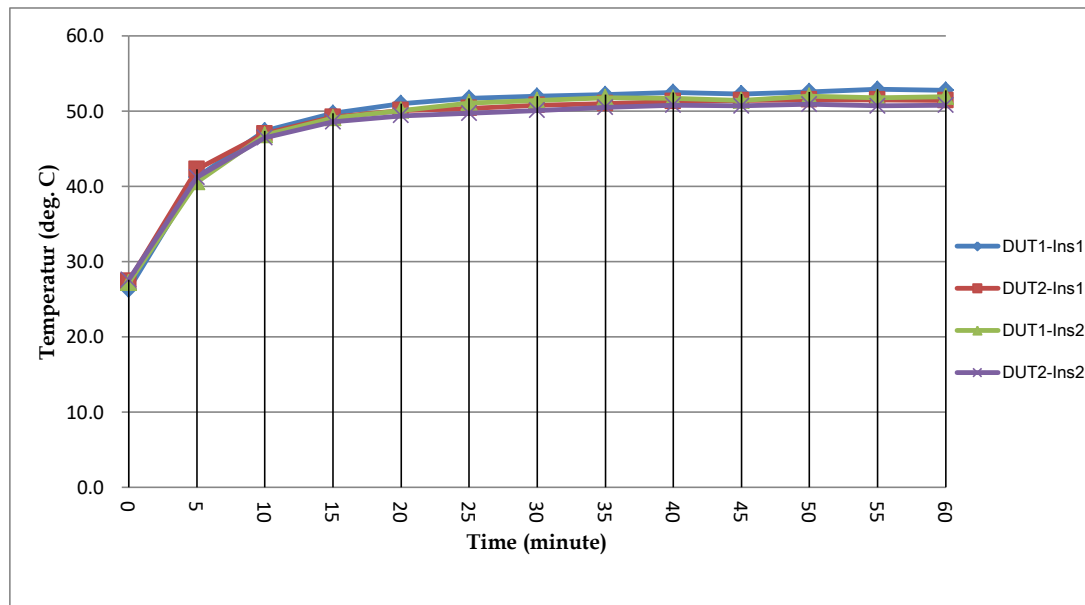
Object: Solar Blocking Diode from Can Solar Inc. (contains YJ GBPC2510 diode in the enclosure)

Testing procedures:

1. DUTs be mounted on Aluminum rack.
2. testing point of the DUT: diode symbol of the top cover of DUT.
3. at time zero, set the output of power supply to 5Vdc 0 Amp, measure the testing point of the DUT as reference of room temperature.
4. set output current to 12A, measure the testing point each 5 minutes until temperature become stable, (time length 60 minutes)
5. Total test two of DUT.

		DUT on Alu. Rack													
DUT 1	Time track	0	5	10	15	20	25	30	35	40	45	50	55	60	
	Instrument 1	26.3	41.2	47.4	49.7	51.0	51.7	52.0	52.2	52.5	52.3	52.6	52.9	52.8	
	Instrument 2	27.2	40.6	46.8	49.1	50.1	51.1	51.4	51.8	51.7	51.4	52.0	51.8	51.9	

		DUT on Alu. Rack													
DUT 2	Time track	0	5	10	15	20	25	30	35	40	45	50	55	60	
	Instrument 1	27.4	42.3	47.0	49.2	50.1	50.4	50.8	51.0	51.3	51.4	51.5	51.5	51.4	
	Instrument 2	27.6	41.2	46.5	48.6	49.4	49.7	50.1	50.5	50.8	50.7	50.9	50.7	50.8	



Testing Result:

Temperature rising from room temperature

DUT 1 Instrument1 26.5 deg. C

Instrument2 24.7 deg. C

DUT 2 Instrument1 24.0 deg. C

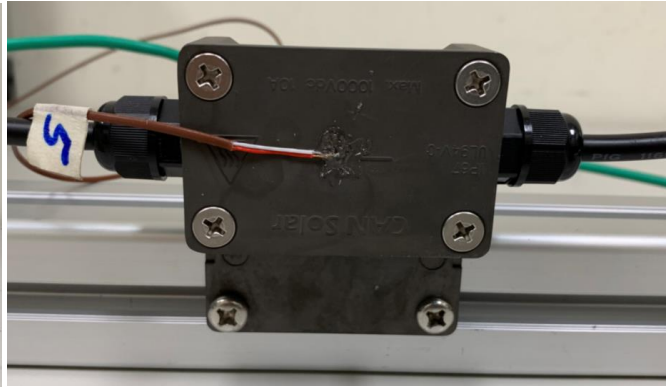
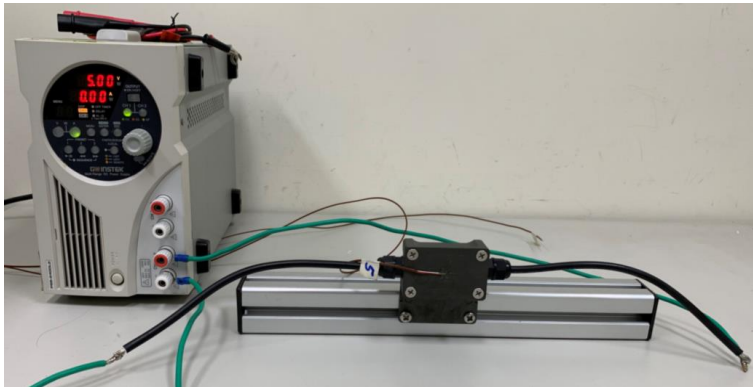
Instrument2 23.2 deg. C

the max. temperature rising is: 26.5 deg. C

Conclusions:

1. Have 26.5 deg. C add on environment temperature.
2. DUT MUST be mounted on Aluminum rack.
3. MUST Keep DUT at relative low temperature spot.
4. DUT on air will shorten life time or damage.

Heating measurement
Setting up



1. DUT1 on Aluminum rack
2. stick the thermal couple on the symbol of diode
3. set power to 5V 12A
4. switch on the power (Voltage drops to V_f 1.17V)
5. write down the reading every 5 minutes upto 60 minutes
6. change to DUT2, go through the step 1 to 5.

the thermo couple sticks point
(on the diode symbol)
(same as the Ir Gun measure point)

measure temperature by thermal couple
and Ir Gun at the same time.



Instrument 1



Instrument 2

the readings from thermal couple and Ir Gun