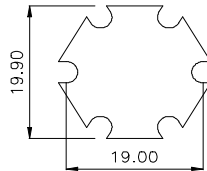


### 1. Scope:

This test method is designed to evaluate the performance of Board temperature ( $T_b$ ) between TRICON and MCPCB with corresponding to power.

### 2. Test specimens

a). 2 set of samples were prepared. The dimension as below:



b). Board thickness: 1.60mm

c). Mounted the LED onto the center of the boards, reflow the LED with solder paste and make sure there have solder paste on the beneath metal part.

d). LED specification:

Osram Golden Dragon

i). ZWW5SG-HYJZ-5K8..-Z

ii). Color: Warm White

iii). Max. wattage: 2.3W

### 3. Apparatus

3.1. **Power Supply source:** Kenwood Regulated DC power supply PR18-3.

3.2. **Measurement Meter:** Advantest R6871E digital multimeter.

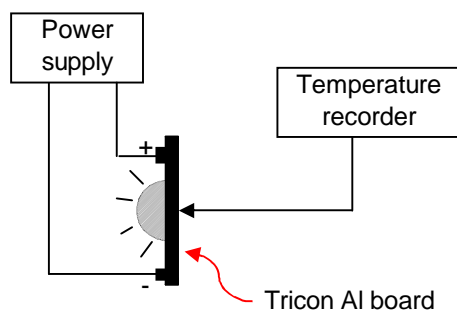
3.3. **Temperature Recording:** Yokogawa Temperature Recorder.

3.4. **Illuminance Meter:** Minolta.

### 4. Procedure



4.1. Prepare the circuit connection as below diagram, the test specimen will drive with 500mA and 750mA forward current. Record the board temperature rise when it was reached the saturation level.

4.2. After finishing each test, the test specimens must be cold down to room temperature before start for the next test. The procedure will repeat for others test.



## 5. Result

Room temperature: 27°C

Sample	LED Colors	Forward current	Board Temperature (°C)	Illuminance at 1m (Lux)
		IF (mA)		
 TRICON	Warm White	500	61.7	16.1
		750	78.0	18.0
 MCPCB	Warm White	500	71.6	15.3
		750	94.5	16.7

