

# ADKOM™ Elektronik GmbH, Germany

PRODUCT DRAWING

CUSTOMER NO.:

FILENAME:

REVISION: I

DRAWING OF TB2010S

ORIGINAL DATE: 23 NOV 2005

TOTAL PAGES: 3

INITIATE

REVISE

EFFECTIVE DATE:

## REVISIONS

REV	DESCRIPTION	DATE
A	Change the size of backlight and dim.	03 DEC 2005
B	Add dim.	09 DEC 2005
C	Mark polarity of pins.	10 DEC 2005
D	Change circuit diagram and parameter.	21 APR 2006
E	Change color of led.	28 APR 2006
F	Change with SMD LEDs.	09 OCT 2008
G	Add the orange color to the specifications.	17 DEC 2008
H	Change peak wave length and spectral line half width(orange).	18 DEC 2008
I	Change forward Voltage for orange.	03 AUG 2010

ORIGINATOR

DESIGN MGR.



确认此图请签字回传。如需样品，请详细注明。

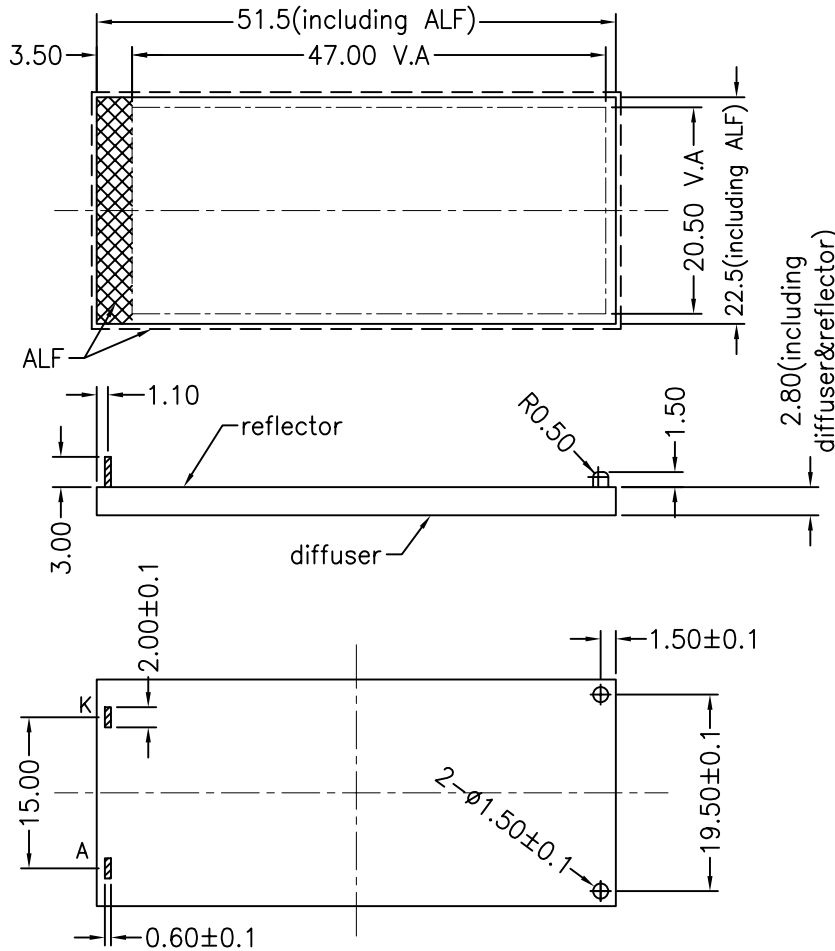
Please sign and fax back this page to confirm this drawing.

Please indicate if you need samples.

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Authorized Signatures

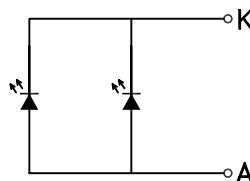
## 1. 结构尺寸 MECHANICAL OUTLINE

(未注尺寸公差 Unspecified Tolerances is  $\pm 0.2$  )



Model no.	Color of LED
TB2010S-B	Blue
TB2010S-W	White
TB2010S-G	Green
TB2010S-O	Orange

## 2. 电路图 CIRCUIT DIAGRAM (LED 1X2=2 dies)



\* SMD LED package 0603

## 3. 保存和焊接条件 STORAGE & SOLDERING CONDITIONS:

- Store with care. Storing the units in bad condition will cause the reflector sheet and decrease its adhesive power. Storage The products under the condition: temperature ( $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$ ) and humidity ( $65^{\circ}\text{CRH} \pm 20^{\circ}\text{CRH}$ ) our recommendation.
- The Soldering Temperature is  $260 \pm 5^{\circ}\text{C}$  and Soldering Time should be less than 3 sec, and soldering iron power should be less than 30W.
- The soldering point should be farther than 1.6mm ( $1/10''$ ) from body .
- 注意保存.保存条件不好时,会降低反光膜(扩散膜)与导光片(反射壳)的粘附力.  
推荐保存条件为: 温度  $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$   
湿度  $65^{\circ}\text{CRH} \pm 20^{\circ}\text{CRH}$
- 焊接温度  $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , 焊接时间小于 3 秒, 烙铁功率小于 30W.
- 焊接点应离产品 实体大于 1.6mm.

## 4. 极限参数 ABSOLUTE MAXIMUM RATINGS

(除非特别说明,环境温度 Ta=25°C. Unless specified, The Ambient temperature Ta=25°C)

项目 Item	符号 Symbol	条件 Conditions	值 Rating				单位 Unit
			蓝(B)	白(W)	绿(G)	橙(O)	
* 极限直流正向电流 Absolute maximum forward current	Ifm		50	40	50	50	mA
* 脉冲驱动时极限正向电流 Peak forward current	Ifp	1 msec 脉冲, 1/10 占空比 1 msec Plus 10% Duty Cycle	120	80	120	120	mA
反向电压 Reverse Voltage	Vr		5	5	5	5	V
* 极限功耗 Power dissipation	Pd		150	130	150	150	mW
工作温度 Operating Temperature Range	Topr		-30~+70°C				°C
贮存温度 Storage Temperature Range	Tstg		-40~+80°C				°C

- \* 当工作温度高于 25°C 时, Ifm, Ifp 和 Pd 必须降低; 电流降低率是 -0.72 mA/°C (直流驱动), 或 -1.72 mA/°C (脉冲驱动), 功耗降低率是 -1.5 mW/°C. 产品的工作电流不能大于对应工作温度条件 Ifm 或 Ifp 的 60 %.
- For operation above 25°C, The Ifm Ifp & Pd must be derated, the Current derating is -0.72 mA/°C for DC drive and -1.72 mA/°C for Pulse drive, the Power dissipation is -1.5 mW/°C. The product working current must not more than the 60 % of the Ifm or Ifp according to the working temperature.

## 5. 电、光特性 ELECTRICAL-OPTICAL CHARACTERISTICS

(除非特别说明,环境温度 Ta=25°C. Unless specified, The Ambient temperature Ta=25°C)

项目 Item	符号 Symbol	蓝色(Blue)			白色(White)			绿色(Green)			橙色(Orange)			单位 Unit	测定条件 Condition
		最小值 min.	典型值 typ.	最大值 max.	最小值 min.	典型值 typ.	最大值 max.	最小值 min.	典型值 typ.	最大值 max.	最小值 min.	典型值 typ.	最大值 max.		
正向电压 Forward Voltage	Vf	3	3.2	3.4	3.2	3.3	3.4	3	3.2	3.4	1.9	2.0	2.1	V	If=30mA
反向电流 Reverse Current	Ir			100			100			100			100	μA	Vr=5V
峰值波长 Peak wave length	λp		470						525				590	nm	If=30mA
频谱半宽度 Spectral Line Half width	Δλ		30			30			30				35	nm	If=30mA
* 亮度 Luminance	Lv													cd/m²	If=30mA

- \* 亮度值是 6 个测量点的平均值, 亮度最大值比最小值一般小于 1.5 (最大 1.7).  
使用 BM-7 亮度色度仪测量, 测量光圈 φ 7 mm.

The luminance is the average value of 6 points, and The Lvmax./Lvmin. is less than 1.5 Typical (max 1.7). The measurement instrument is BM-7 luminance Colorimeter. The aperture is φ 7 mm.

