

## LT1E45A

## Chip LED Device

High-luminosity, Side Emission Chip LED Device for LCD Backlight

### General Description

Sharp's **LT1E45A**(high-luminosity, yellow-green) is thin type compact size chip LED device.(2.7 x1.3 x 1.2mm) It is suitable for LCD backlight of portable equipment such as cellular phones and pagers etc.

### Features

- (1) Compact, thin type(2.7x1.3x1.2mm thickness)
- (2) High-luminosity, yellow-green
- (3) Reflector is designed for the most suitable characteristics  
\*Radiation characteristics

(2θ1/2)  $\left\{ \begin{array}{l} \text{Horizontal (130}^\circ\text{)} \\ \text{Vertical (100}^\circ\text{)} \end{array} \right.$

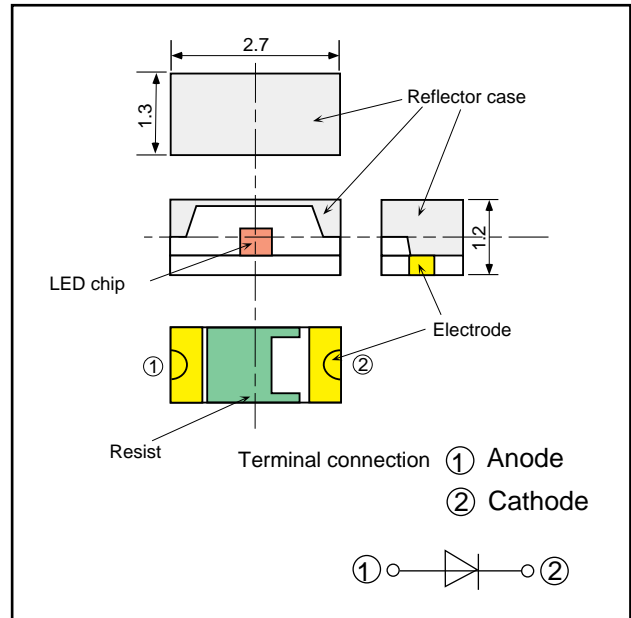
- (4) Tape packaged product ( 3 000pcs./reel)

### Applications

LCD backlight of portable equipment such as cellular phones and pagers

### Outline Dimensions

(Unit:mm)



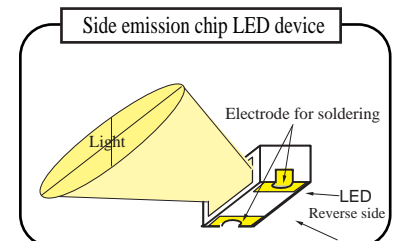
### Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power dissipation	P	84	mW
Forward current	I <sub>F</sub>	30	mA
*1 Peak forward current	I <sub>FM</sub>	50	mA
Derating current	DC	0.40	mA/°C
	Pulse		
Reverse voltage	V <sub>R</sub>	5.0	V
Operating temperature	T <sub>opr</sub>	- 25 to +85	°C
Storage temperature	T <sub>stg</sub>	- 25 to +100	°C

\* Duty ratio=1/10

Pulse width=0.1ms



### Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Condition	Typ.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	2.1	V
*2 Luminous intensity	I <sub>V</sub>		(28)	mcd
Peak emission wavelength	λ <sub>P</sub>		565	nm
Spectrum radiation bandwidth	Δλ		30	nm
Reverse current	I <sub>R</sub>	V <sub>R</sub> =4V	MAX.10	μA
Terminal capacitance	C <sub>t</sub>	V=0V, f=1MHz	35	pF

\*2 Measured by Sharp by EG & G MODEL550 (RADIOMETER/PHOTOMETER SYSTEM)

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• Specifications are subject to change without notice for improvement.

(Internet) • Data for Sharp's optoelectronic/power devices is provided for internet. ( Address <http://www.sharp.co.jp/ecg/>)