

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Product Guide



1112H Series Thin Type SMT LED

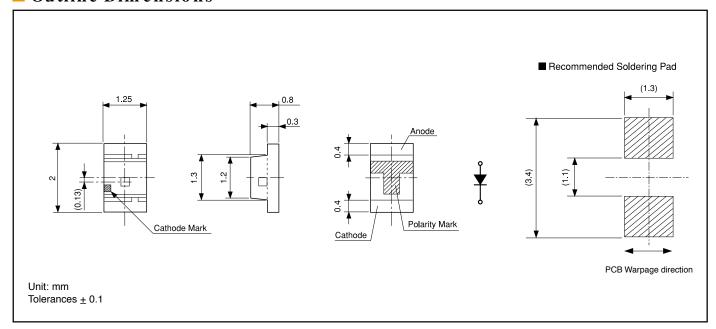
#### Features

- Meets industry standards for 2012 (0806) footprint 2.0mm (L) x 1.25mm (W) x 0.8mm (H)
- 1112H is 50% thinner than the W series.

## Applications

- · Membrane switch panels
- Backlighting
- · Cellular telephones

#### Outline Dimensions



## Electro-Optical Characteristics

(Ta=25°C)

Type No.	Material	Emitted Color	Lens Color	Luminous Intensity <sub>V</sub>			Wavelength Spectral Line Peak Dominant Half Width				Forward Voltage v <sub>F</sub>			Reverse Current IR		
				MIN.	TYP.	le.	λρ TYP.	λd TYP.	Δλ TYP.	IF	TYP	MAX.	İF	MAX.	<b>V</b> R	(2 θ 1/2)
BR1112H	GaAlAs	Red	Milky White	7.0	11.7	20	660	647	30	20	1.7	2.3	20	100	4	150°
AA1112H	GaAsP	Orange		2.2	3.7	20	605	606	30	20	2.2	2.8	20	100	4	160°
AY1112H	GaAsP	Yellow		2.2	3.7	20	580	590	30	20	2.2	2.8	20	100	4	
PY1112H	GaP	Yellow-Green		7.0	11.7	20	570	572	30	20	2.1	2.8	20	100	4	
PG1112H	GaP	Green		3.8	6.4	20	560	567	30	20	2.1	2.8	20	100	4	
BG1112H	GaP	Pure Green		1.6	2.7	20	555	558	30	20	2.1	2.8	20	100	4	
	Units				mcd		nm			mA	,	V	mA	μΑ	٧	Deg.

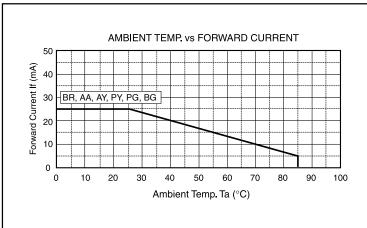
### ■ Absolute Maximum Ratings

(Ta=25°C)

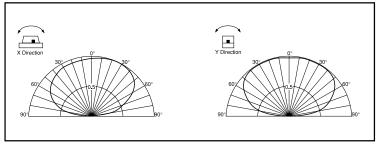
Item		Red	Orange	Yellow	Yellow Green	Green	Pure Green	Units	
Item	Symbol	BR	AA	AY	PY	PG	BG		
Power Dissipation	Pd	57.5	70	70	70	70	70	mW	
Forward Current	<b>I</b> F	25	25	25	25	25	25	mA	
Peak Forward Current	<b>I</b> FM	60	60	60	60	60	60	mA	
Reverse Voltage	<b>V</b> R	4	4	4	4	4	4	V	
Operating Temperature	Operating Temperature Topr -30 to +85								
Storage Temperature	Tstg	-40 to +100							
Derating*	ΔI <sub>F</sub>	0.36 (DC) 0.86 (Pulse)							

<sup>\*</sup> Ta=25°C, I<sub>FM</sub> applies for the pulse width ≤ 1msec. and duty cycle ≤1/20.

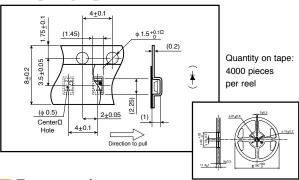
## Operation Current Derating Chart (DC)



## Spatial Distribution



## **■** Taping Specifications

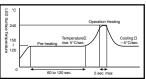


#### Precautions

Please follow these handling precautions to prevent damage to the chip and ensure its reliability.

#### 1. Soldering conditions:

- <u>Soldering iron</u>: Temperature at tip of iron: 280°C max. (30W max.) Soldering time: 3 sec. max.
- <u>Dip soldering</u>: Preheating: 120 ~ 150°C max. (resin surface temp.) 60 ~ 120 sec. max. Bath temperature: 260°C max. Dipping Time: 5 sec. max.
- Reflow Soldering:



#### 2. Cleaning:

- If cleaning is required, use the following solutions for less than 1 minute, at less than 40°C.
- Appropriate chemicals: Ethyl alcohol and isopropyl alcohol.
- Effect of ultrasonic cleaning on the LED resin body differs depending on such factors as the oscillator output, size of PCB and LED mounting method. The use of ultrasonic cleaning should be enforced at proper output after confirming there is no problem.

Product specifications subject to change without notice. PG1112H-0301

