



Product Guide



1211F Series, Bi-Color Right Angle SMT LED

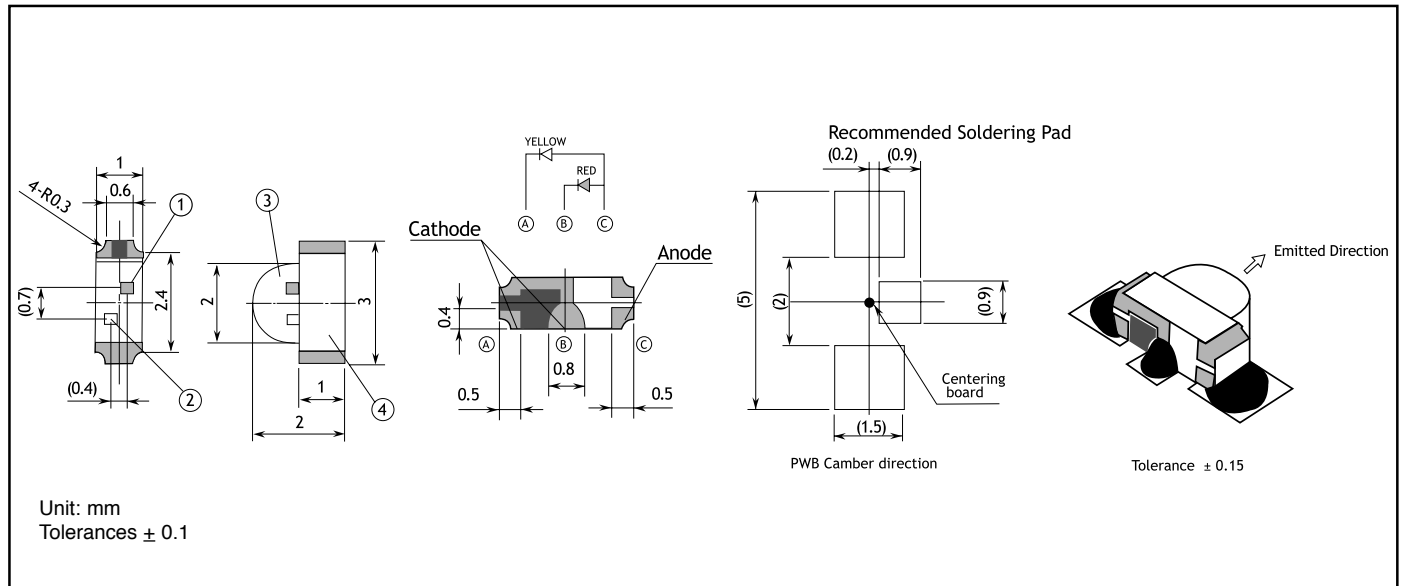
Features

- Bi-color right angle LED
- Measures 3.0L x 2.0W x 1.0H
- Same dimensions as mono-color / 1101F type
- Highly reliable, space- and cost-efficient

Applications

- Edge-lighting applications such as use in cellular telephones
- Indicators for PCs, servers, modems, printers or scanners

Outline Dimensions



Electro-Optical Characteristics

(Ta=25°C)

Part No.	Material	Emitted Color	Lens Color	Luminous Intensity I _v			Wavelength				Forward Voltage V _f			Reverse Current I _R		Viewing Angle (2 θ 1/2)		
				MIN.	TYP.	I _f	Peak λ _p TYP.	Dominant λ _d TYP.	Spectral Line Half Width Δλ TYP.	I _f	TYP.	MAX.	I _f	MAX.	V _R			
AAPG1211F	GaAsP	Orange (AA)	Milky White	2.1	3.0	20	605	606	30	20	2.2	2.8	20	100	4	150°		
	GaP	Green (PG)		3.7	5.2	20	560	567	30	20	2.1	2.8	20	100	4			
AYPG1211F	GaAsP	Yellow (AY)		2.1	3.0	20	580	590	30	20	2.2	2.8	20	100	4			
	GaP	Green (PG)		3.7	5.2	20	560	567	30	20	2.1	2.8	20	100	4			
BRPG1211F	GaAlAs	Red (BR)		12.4	17.6	20	660	647	30	20	1.7	2.3	20	100	4			
	GaP	Green (PG)		3.7	5.2	20	560	567	30	20	2.1	2.8	20	100	4			
BRPY1211F	GaAlAs	Red (BR)		12.4	17.6	20	660	647	30	20	1.7	2.3	20	100	4			
	GaP	Yellow-Green (PY)		6.2	8.8	20	570	572	30	20	2.1	2.8	20	100	4			
Units				mcd	mA		nm		mA		V	mA	μA	V	Deg.			

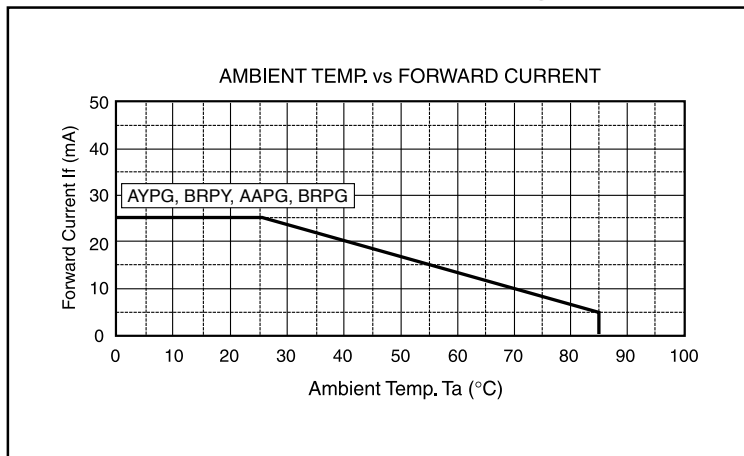
Absolute Maximum Ratings

(Ta=25°C)

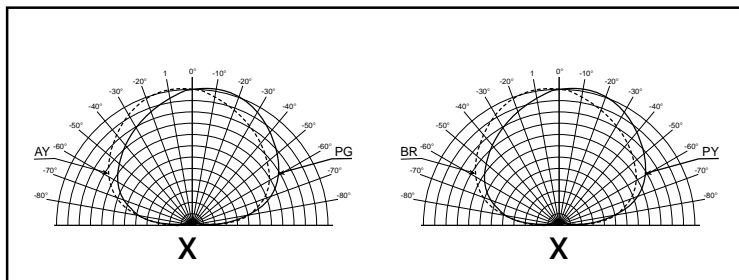
Item	Symbol	Yellow (AY) - Green (PG)	Red (BR) - Yellow-Green (PY)	Orange (AA) - Green (PG)	Red (BR) - Green (PG)	Units
		AYPG	BRPY	AAPG	BRPG	
Power Dissipation	Pd	70	70	70	70	mW
Forward Current	I _F	25	25	25	25	mA
Peak Forward Current	I _{FM}	60	60	60	60	mA
Reverse Voltage	V _R	4	4	4	4	V
Operating Temperature	Topr	-40 to +85				°C
Storage Temperature	Tstg	-40 to +100				°C
Derating*	ΔI _F	0.36 (DC) 0.86 (Pulse)				mA/°C

* Ta=25°C, I_{FM} applies for the pulse width ≤ 1msec. and duty cycle ≤ 1/20.

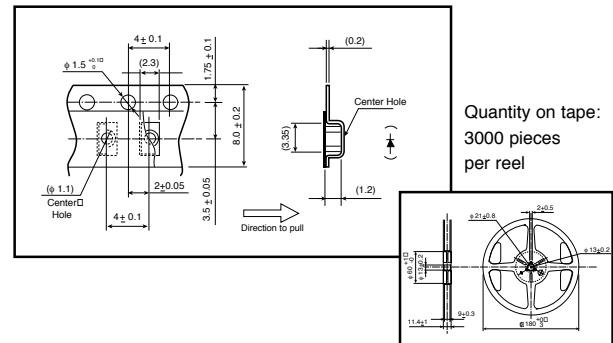
Operation Current Derating Chart (DC)



Spatial Distribution



Taping Specifications

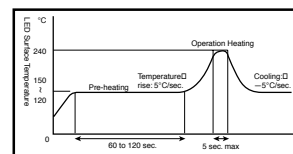


Precautions

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

1. Soldering conditions:

- **Soldering iron:** Temperature at tip of iron: 280°C max. (30W max.) Soldering time: 3 sec. max.
- **Dip soldering:** 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. PG1211F-0301