



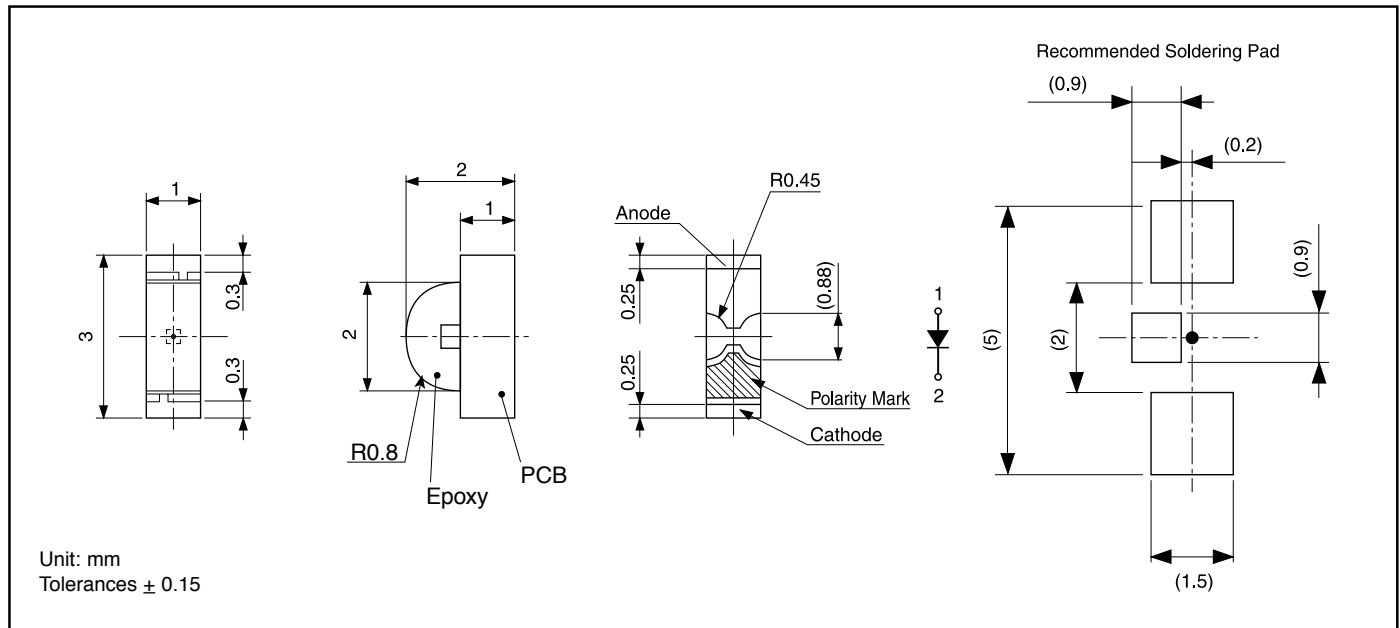
Features

- Excellent for edge lighting LCDs and backlighting indicators

Applications

- Computer / Telecommunications
- Industrial / Medical instrumentation
- Audio visual equipment

Outline Dimensions



Electro-Optical Characteristics

($T_a=25^\circ\text{C}$)

Type No.	Material	Emitted Color	Lens Color	Luminous Intensity I_v			Wavelength				Forward Voltage V_f			Reverse Current I_R		Viewing Angle (2θ 1/2)
				MIN.	TYP.	I_f	Peak λ_p TYP.	Dominant λ_d TYP.	Spectral Line Half Width $\Delta\lambda$ TYP.	I_f	TYP.	MAX.	I_f	MAX.	V_R	
BR1101F	GaAlAs	Red	Water Clear	6.2	12.4	20	660	647	30	20	1.7	2.3	20	100	4	170°
AA1101F	GaAsP	Orange		1.5	3.0	20	605	606	30	20	2.2	2.8	20	100	4	
AY1101F	GaAsP	Yellow		1.5	3.0	20	580	590	30	20	2.2	2.8	20	100	4	
PY1101F	GaP	Yellow Green		4.4	8.8	20	570	572	30	20	2.1	2.8	20	100	4	
PG1101F	GaP	Green		2.6	5.2	20	560	567	30	20	2.1	2.8	20	100	4	
BG1101F	GaP	Pure Green		1.2	2.4	20	555	558	30	20	2.1	2.8	20	100	4	
Units				mcd		mA	nm			mA	V	mA	μA	V	Deg.	

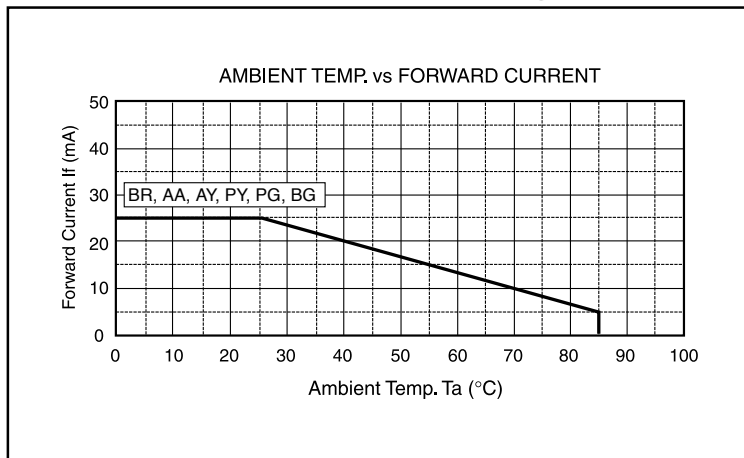
Absolute Maximum Ratings

(Ta=25°C)

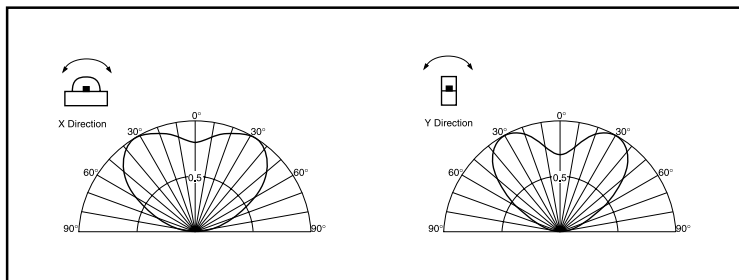
Item	Symbol	Red	Orange	Yellow	Yellow Green	Green	Pure Green	Units
		BR	AA	AY	PY	PG	BG	
Power Dissipation	Pd	57.5	70	70	70	70	70	mW
Forward Current	I _F	25	25	25	25	25	25	mA
Peak Forward Current	I _{FM}	60	60	60	60	60	60	mA
Reverse Voltage	V _R	4	4	4	4	4	4	V
Operating Temperature	Topr	-30 to +85						°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.

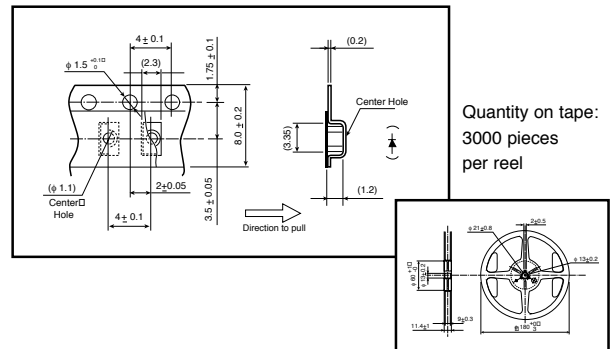
Operation Current Derating Chart (DC)



Spatial Distribution



Taping Specifications

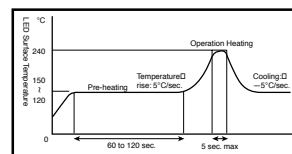


Precautions

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. PG1101F-0301



Product Guide



F_1101F Series Right Angle AllnGaP SMT LED

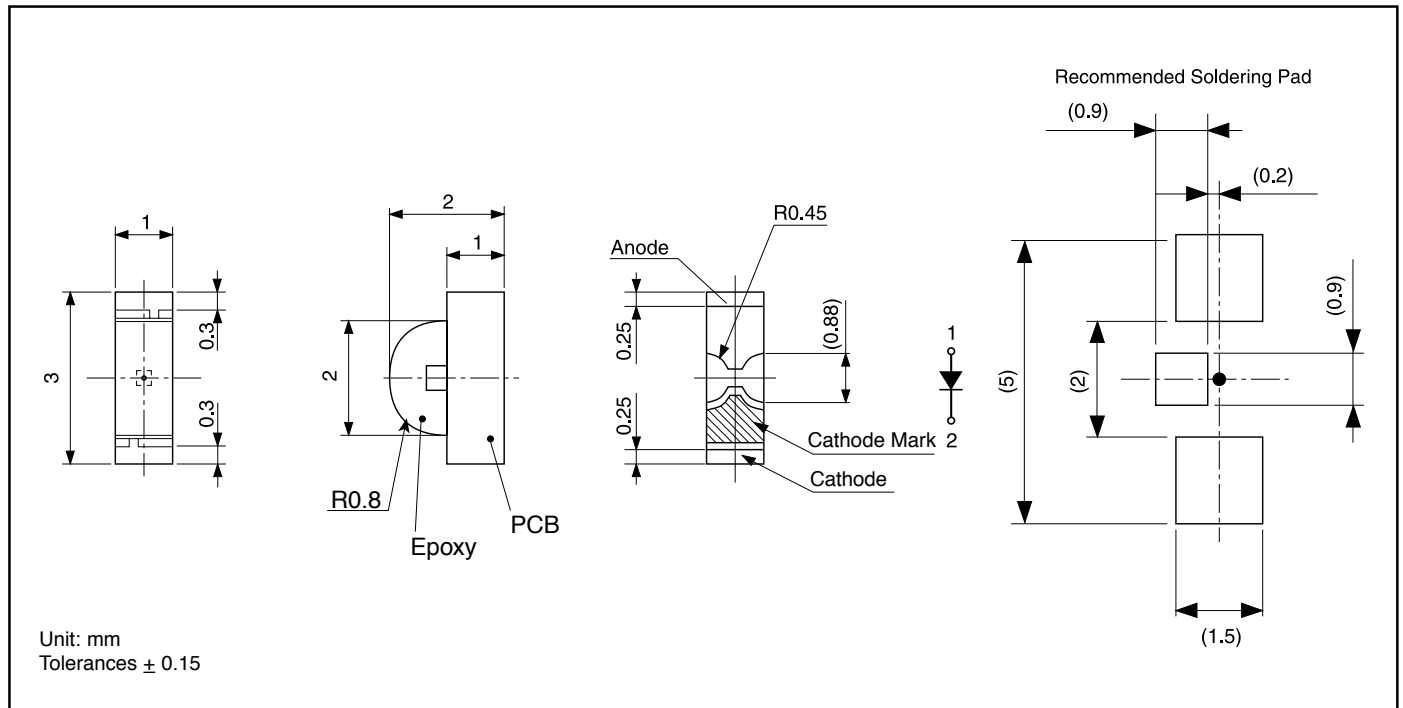
Features

- Compact, super bright AllnGaP die
- Excellent for indicators and backlighting LCDs

Applications

- Mobile devices (cellular telephones, PDAs, pagers)
- Audio visual equipment
- Telecommunications

Outline Dimensions



Electro-Optical Characteristics

($T_a=25^\circ\text{C}$)

Part No.	Material	Emitted Color	Lens Color	Luminous Intensity I_v			Wavelength				Forward Voltage V_f			Reverse Current I_R		Viewing Angle ($2\theta_{1/2}$)
				MIN.	TYP.	I_f	Peak λ_p TYP.	Dominant λ_d TYP.	Spectral Line Half Width $\Delta\lambda$ TYP.	I_f	TYP.	MAX.	I_f	MAX.	V_R	
FR1101F	AllnGaP	Red	Water Clear	25	50	20	635	626	15	20	1.9	2.4	20	100	5	140°
FA1101F	AllnGaP	Orange		25	65	20	609	605	15	20	1.9	2.4	20	100	5	
FY1101F	AllnGaP	Yellow		25	65	20	592	590	15	20	1.9	2.4	20	100	5	
Units				mcd	mA		nm			mA	V	mA	μA	V	Deg.	

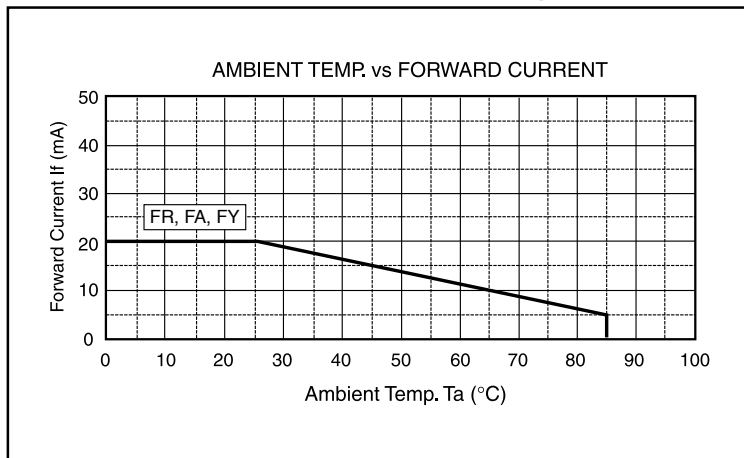
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(Ta=25°C)

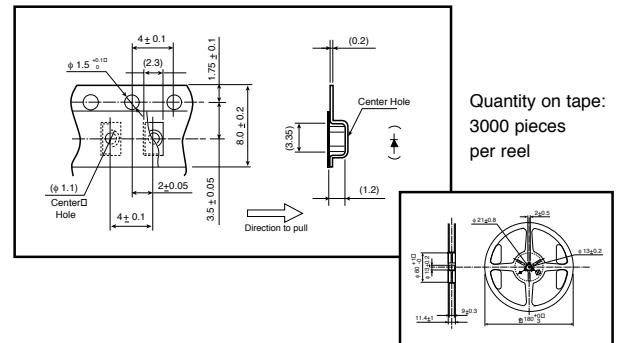
Item	Symbol	Red	Orange	Yellow	Units
		FR	FA	FY	
Power Dissipation	Pd	81	81	81	mW
Forward Current	I _F	30	30	30	mA
Peak Forward Current	I _{FM}	100	100	100	mA
Reverse Voltage	V _R	5	5	5	V
Operating Temperature	Topr	-40 to +85			°C
Storage Temperature	Tstg	-40 to +100			°C
Derating*	ΔI _F	0.43 (DC) 1.0 (Pulse)			mA/°C

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

Operation Current Derating Chart (DC)



Taping Specifications

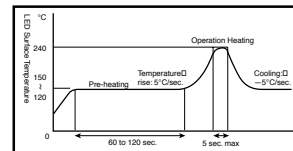


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Soldering time: 3 sec. max.
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60 ~ 120 sec. max. Bath temperature: 260°C max. Dipping Time: 5 sec. max.
- **Reflow Soldering:**

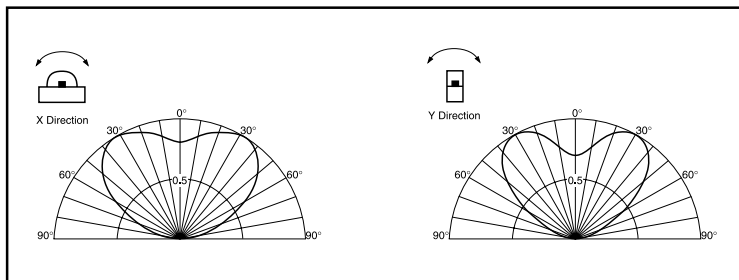


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Product specifications subject to change without notice. PGF_1101F-0301

Spatial Distribution



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