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STANLEY

Product Guide

1113F Series, Right Angle SMT LED

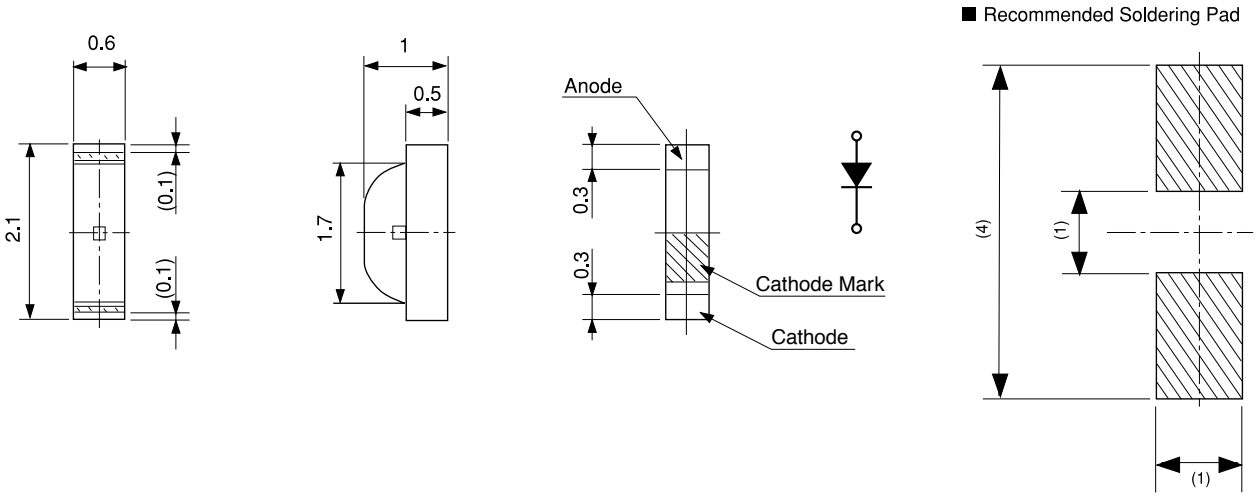
Features

- Smaller size while maintaining the same brightness levels as the 1101F series
- Excellent for edge lighting

Applications

- Portable devices
- Computers
- Industrial / medical instrumentation

Outline Dimensions



Unit: mm
Tolerances ± 0.1

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)
							Peak λp	Dominant λd	Spectral Line Half Width Δλ							
				MIN.	TYP.	I_F	TYP.	TYP.	TYP.	I_F	TYP.	MAX.	I_F	MAX.	V_R	
BR1113F	GaAlAs	Red	Milky White	7	11.7	20	660	647	30	20	1.7	2.3	20	100	4	130°
PY1113F	GaP	Yellow-Green		7	11.7	20	570	572	30	20	2.1	2.8	20	100	4	150°
PG1113F	GaP	Green		3.8	6.4	20	560	567	30	20	2.1	2.8	20	100	4	
Units				mcd		mA	nm			mA	V		mA	μA	V	Deg.

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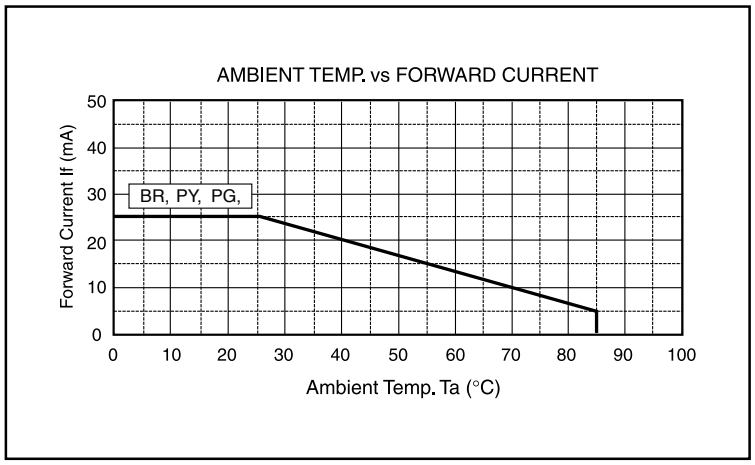
Absolute Maximum Ratings

(Ta=25°C)

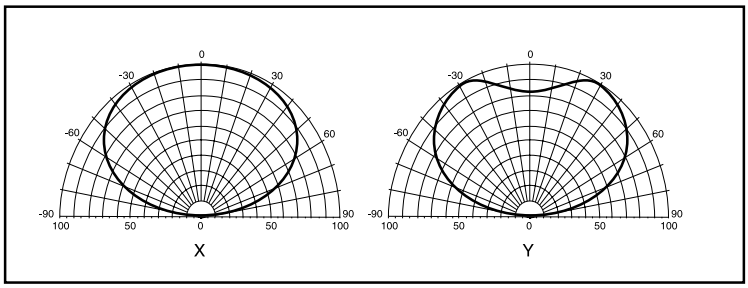
Item	Symbol	Red	Yellow-Green	Green	Units
		BR	PY	PG	
Power Dissipation	Pd	57.5	70	70	mW
Forward Current	I_F	25	25	25	mA
Peak Forward Current	I_{FM}	60	60	60	mA
Reverse Voltage	V_R	4	4	4	V
Operating Temperature	Topr	-30 to +85			°C
Storage Temperature	Tstg	-40 to +100			°C
Derating*	ΔI_F	0.36 (DC) 0.86 (Pulse)			mA/°C

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

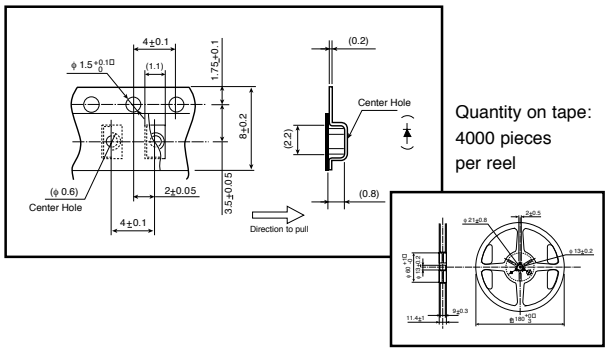
Operation Current Derating Chart (DC)



Spatial Distribution



Taping Specifications



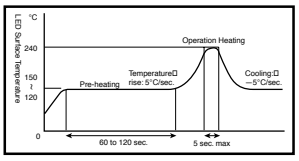
Quantity on tape:
4000 pieces
per reel

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. PG__1113F-0301

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