



Product Guide

1112C Series Thin Type Ultra Compact SMT LED



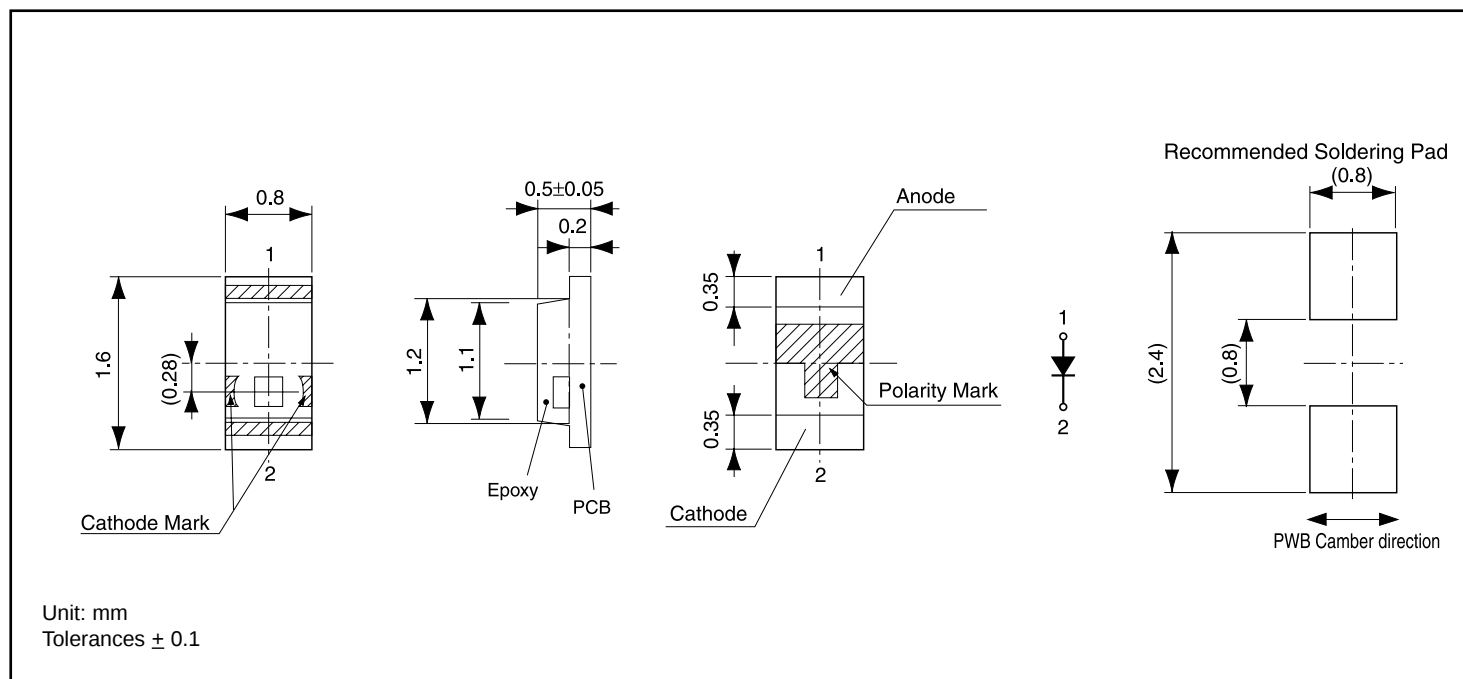
Features

- New packaging technique uses thinner height profile with 1608 (0603) footprint
- Half pitch taping option

Applications

- Cellular phones, pagers
- Mobile Devices
- Excellent for backlighting

Outline Dimensions



Electro-Optical Characteristics

(Ta=25°C)

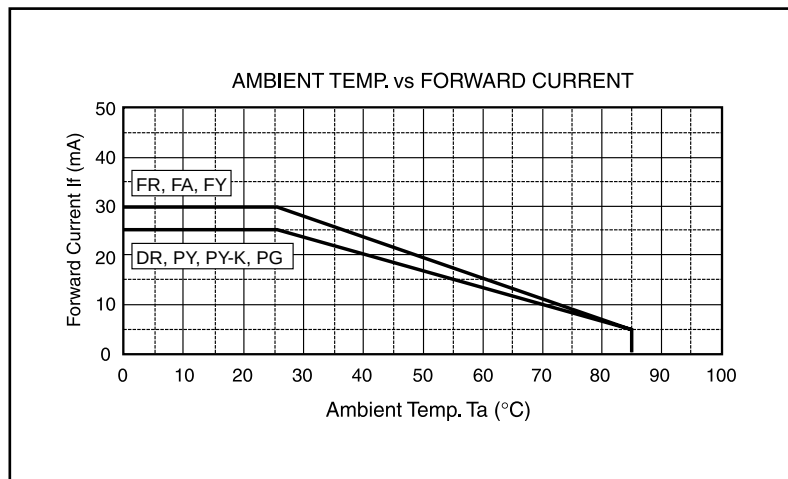
Part No.	Material	Emitted Color	Lens Color	Luminous Intensity I _V			Wavelength				Forward Voltage V _F			Reverse Current I _R		Viewing Angle (2 θ 1/2)
				MIN.	TYP.	I _F	Peak λ _p TYP.	Dominant λ _d TYP.	Spectral Line Half Width Δλ TYP.	I _F	TYP.	MAX.	I _F	MAX.	V _R	
FR1112C	AlInGaP	Red	Milky White	25	45	20	635	626	15	20	1.9	2.4	20	100	5	130°
FA1112C	AlInGaP	Orange		25	50	20	609	605	15	20	1.9	2.4	20	100	5	
FY1112C	AlInGaP	Yellow		25	50	20	590	590	15	20	1.9	2.4	20	100	5	
DR1112C	GaAsP	Red		2.4	4.1	20	650	633	40	20	1.9	2.8	20	100	4	150°
PG1112C	GaP	Green		4.5	7.6	20	560	567	30	20	2.2	2.8	20	100	4	
PY1112C	GaP	Yellow-Green		7.0	11.7	20	570	572	30	20	2.1	2.8	20	100	4	
PY1112CK	GaP	Yellow-Green		3.3	5.6	10	570	572	30	10	2.1	2.8	10	100	4	
Units				mcd		mA	nm			mA	V		mA	μA	V	Deg.

(Ta=25°C)

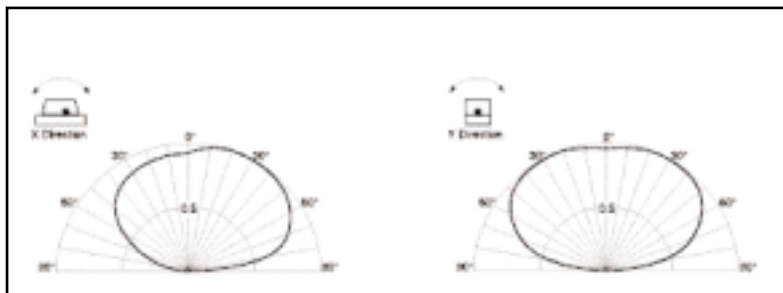
Item		Red		Orange	Yellow	Yellow-Green		Green	Units
	Symbol	FR	DR	FA	FY	PY	PY-K	PG	
Power Dissipation	Pd	81	70	81	81	70	75	70	mW
Forward Current	I _F	30	25	30	30	25	25	25	mA
Peak Forward Current	I _{FM}	100	60	100	100	60	60	60	mA
Reverse Voltage	V _R	5	4	5	5	4	4	4	V
Operating Temperature	Topr	-40 to +85							°C
Storage Temperature	Tstg	-40 to +100							°C
Derating*	ΔI _F	0.43 (DC) 1.0 (Pulse)	0.36 (DC) 0.86 (Pulse)	0.43 (DC) 1.0 (Pulse)		0.36 (DC) 0.86 (Pulse)			mA/°C

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

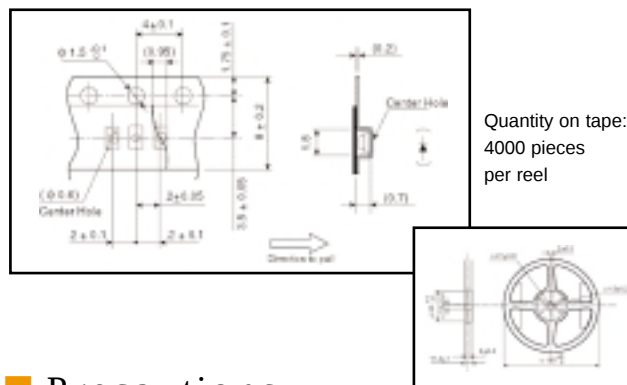
■ Operation Current Derating Chart (DC)



■ Spatial Distribution



■ Taping Specifications

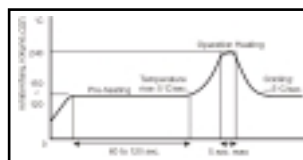


■ Precautions

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. PG1112C-0301