

(寸法単位:mm)

SM1204シリーズ

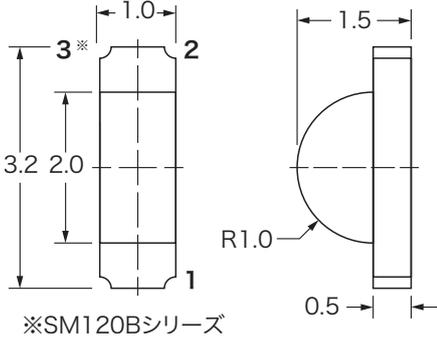
直角取付けタイプSMD LED

販売単位 テープ&リール

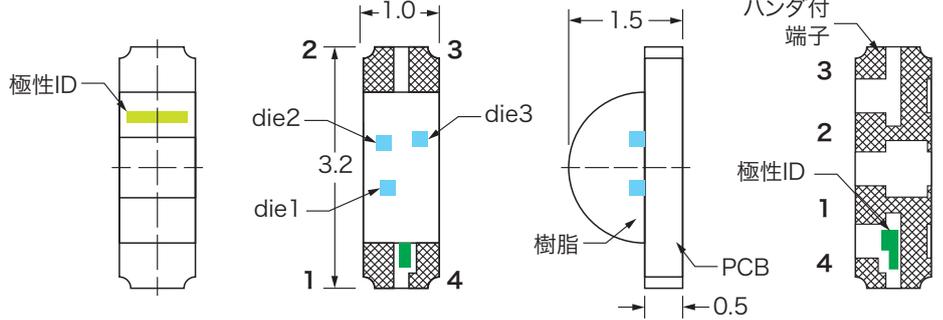


- 1204パッケージに単色、2色、RGB色発光
- 基板に直角に取付
- 透明レンズ(SM1204UWCのみ白色拡散)
- 視野角: 130°、110°
- テープ&リールは1巻3,000個

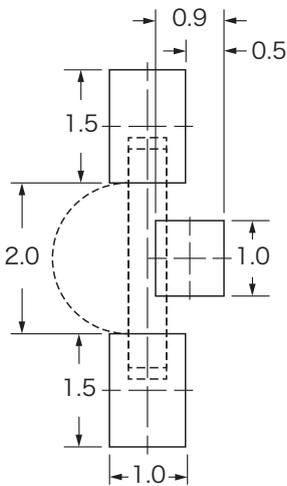
■寸法図



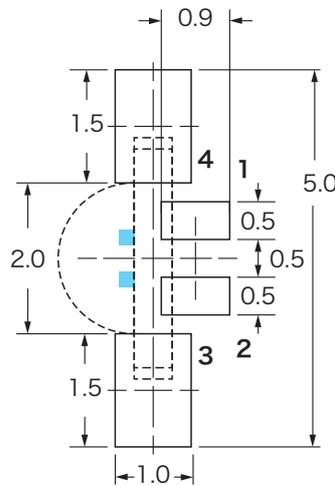
SM1204R



■ハンダパッドレイアウト用推奨フットプリント

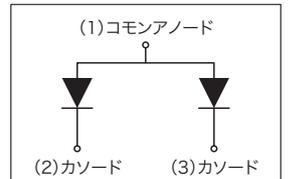


SM1204RGB



■回路図

SM1204BCシリーズ

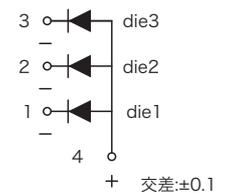


SM1204BC	赤	緑
SM1204BC-A/G	茶	緑
SM1204BC-R/B	赤	青
SM1204BC-R/G	赤	緑

その他



SM1204RGB



(寸法単位:mm)

型番	チップ素材	発光色	ピーク波長 $\lambda_p$ (nm)TYP.	色度座標	レンズ	発光輝度 (mcd)TYP.	視野角
SM1204BC	AlGaInP	■赤	640	—	無色透明	7.2	130°
	AlGaInP	■緑	568	—		18	
SM1204BC-A/G	AlGaInP	■アンバー	593	—	無色透明	72	130°
	AlGaInP	■緑	575	—		28.5	
SM1204BC-R/B	AlGaInP	■赤	645	—	無色透明	115	130°
	InGaIn	■青	468	—		115	
SM1204BC-R/G	AlGaInP	■赤	645	—	無色透明	115	130°
	AlGaInP	■緑	575	—		72	
SM1204PGC	InGaIn	■緑	500	—	無色透明	360	110°
SM1204SBWC	InGaIn	■青	468	—	無色透明	90	110°
SM1204SGC	AlGaInP	■緑	575	—	無色透明	50	110°
SM1204SRC	AlGaInP	■赤	655	—	無色透明	48	110°
SM1204UAC	AlGaInP	■アンバー	610	—	無色透明	90	110°
SM1204UGC	AlGaInP	■緑	568	—	無色透明	28.5	110°
SM1204UOC	AlGaInP	■オレンジ	630	—	無色透明	70	110°
SM1204UPGC	InGaIn/GaN	■緑	510	—	無色透明	285	110°
SM1204URC	AlGaInP	■赤	645	—	無色透明	115	110°
SM1204UYC	AlGaInP	■黄	593	—	無色透明	72	110°
SM1204UWC	InGaIn	□白	—	X=.30, Y=.30	白色拡散	450	110°

型番	発光色	ピーク波長 $\lambda_p$ (nm)TYP.	主波長 $\lambda_D$ (nm)TYP.	色度座標	レンズ	発光輝度 (mcd)TYP.	視野角
SM1204RGB	■超高輝赤	645	631	—	無色透明	100	110°
	■緑	523	525	—		550	
	■青	468	470	—		225	

## 絶対最大定格

TA=25°C

型番	消費電力	順方向電流 (DC)	ピーク 順方向 電流 <sup>※1</sup>	逆電圧	動作温度範囲	保管温度範囲	ハンダ付耐熱性 (エポキシ本体下部から 3mm) <sup>※2</sup>
SM1204BC	赤: 69mW 緑: 78mW	30mA	100mA	5V	-30~+85°C	-40~+100°C	260°C
SM1204BC-A/G	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204BC-R/B	100mW	25mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204BC-R/G	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204PGC	100mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204SBWC	100mW	20mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204SGC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204SRC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204UAC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204UGC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204UOC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204UPGC	100mW	25mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204URC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204UYC	78mW	30mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204UWC	100mW	25mA	100mA	5V	-30~+80°C	-40~+85°C	260°C
SM1204RGB <sup>※3</sup>	—	—	100mA	5V	-30~+80°C	-40~+85°C	—

※1. 10%デューティサイクルパルス幅:  $\leq 0.1$ msce. ※2. ハンダ付時間: 5秒以下 ※3. 25°Cからリニアディレーティング最大0.4mA/°C

電気/光学特性

TA=25°C, IF=20mA

型番	発光色	順方向電圧 (V) ※1		推奨順方向電流 (mA)	逆電流 (μA)	主波長 (nm) ※2	光度 lv(mcd)		視野角 2θ½
		TYP	MAX	TYP	MAX	TYP	MIN	TYP	TYP
SM1204BC-A/G	アンバー	2.1	2.6	20	10	592	45	72	130°
	緑	2.1	2.6	20	10	574	22.5	28.5	
SM1204BC-R/B	赤	2.1	2.6	20	10	631	45	115	130°
	青	2.9	4.2	20	10	470	45	115	
SM1204BC-R/G	赤	2.1	2.6	20	10	631	45	115	130°
	緑	2.2	2.7	20	10	574	28.5	72	
SM1204BC	赤	2.0	2.3	20	10	628	3.6	7.2	130°
	緑	2.0	2.3	20	10	570	11.5	18	
SM1204PGC	緑	3.3	3.5	20	10	505	285	360	110°
SM1204SBWC	青	3.3	4.2	20	10	470	72	90	110°
SM1204SGC	緑	2.1	2.6	20	10	574	20	50	110°
SM1204SRC	赤	2.1	2.6	20	10	640	20	48	110°
SM1204UAC	アンバー	2.1	2.6	20	10	605	45	90	110°
SM1204UGC	緑	2.1	2.6	20	10	565	11.5	28.5	110°
SM1204UOC	オレンジ	2.1	2.6	20	10	625	30	70	110°
SM1204UPGC	緑	3.3	4.2	20	10	515	180	285	110°
SM1204URC	赤	2.1	2.6	20	10	631	72	115	110°
SM1204UYC	黄	2.1	2.6	20	10	592	28.5	72	110°
SM1204UWC	白	3.3	4.2	20	10	n/a	285	450	110°

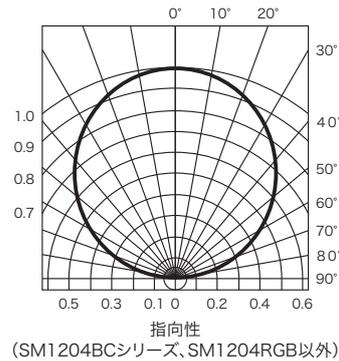
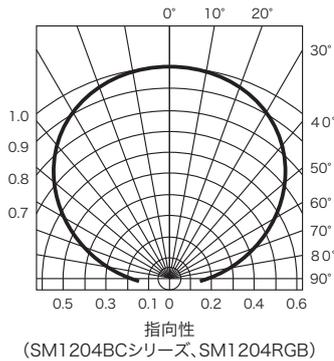
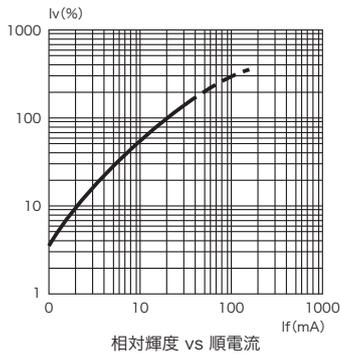
※1. 順方向電圧の許容差: ±0.05V

※2. 主波長の許容差: ±1.0nm

型番	チップ			レンズの外観	絶対最大定格			電気光学データ (20mA 時)				視野角 2θ½
	発光色	λP (nm)	λD (nm)		Δλ (nm)	Pd (mW)	If (mA)	Vf (V)		lv (mcd)		
								Typ.	Max.	Min.	Typ.	
SM1204RBG	Ultra High Red(Die 1)	645	631	Water Clear	20	78	30	2.1	2.6	72	100	110°
	Green(Die 2)	523	525		30	84	20	3.1	4.2	360	550	
	Blue(Die 3)	468	470		25	84	20	2.9	4.2	145	225	

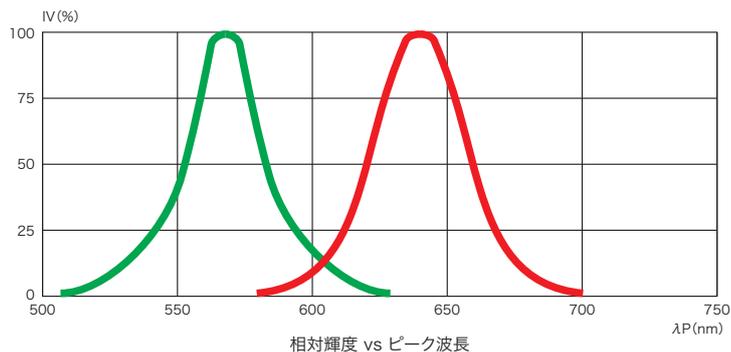
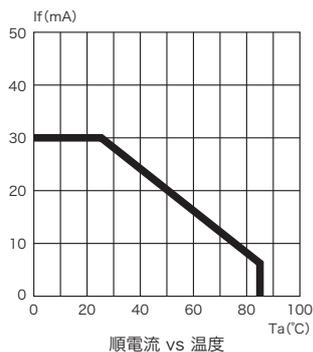
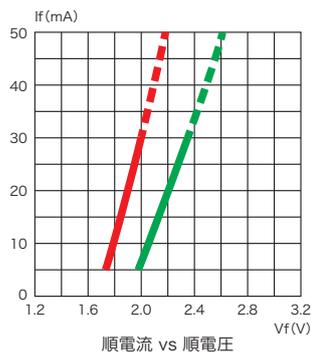
電気/光学特性図

TA=25°C

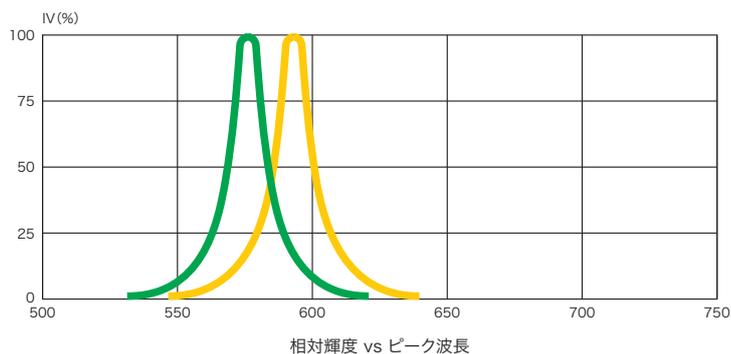
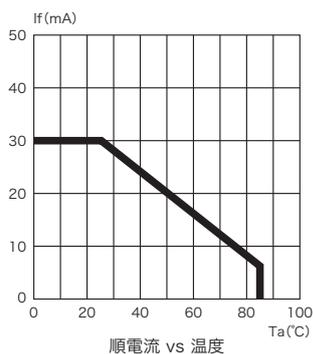
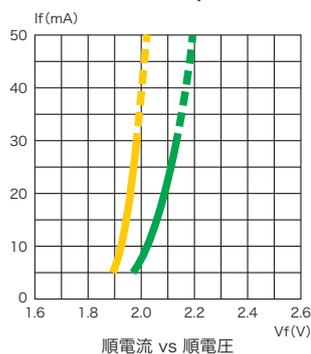


(寸法単位:mm)

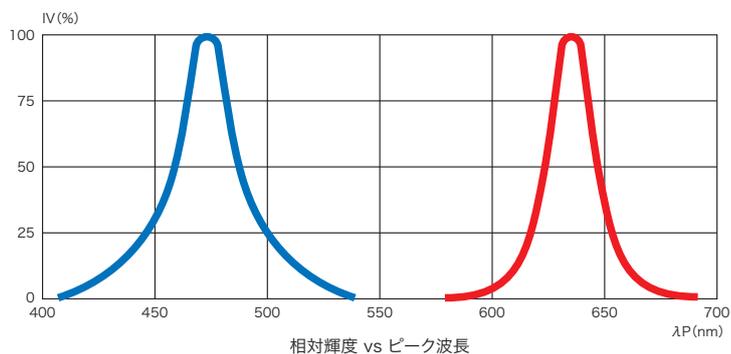
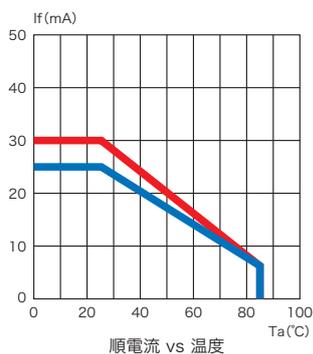
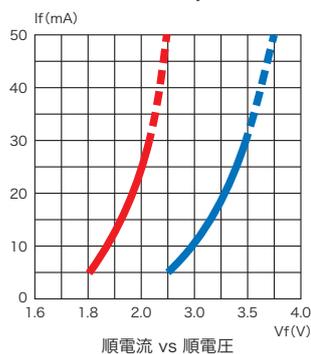
■SM1204BC



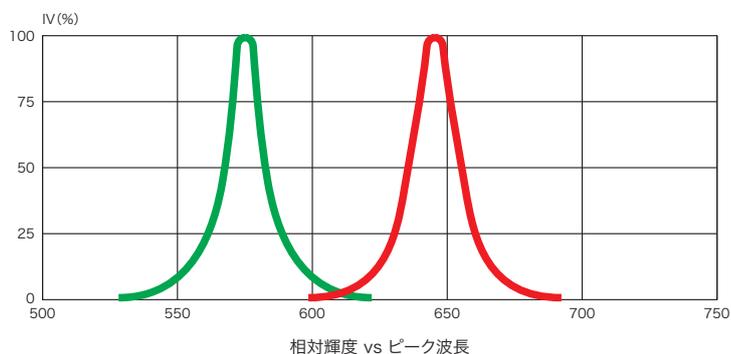
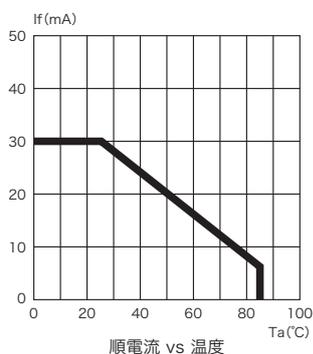
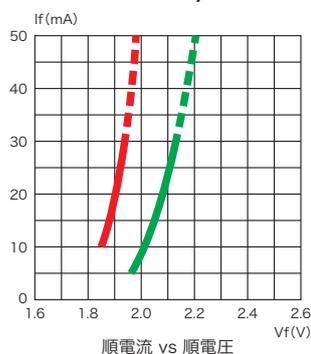
■SM1204BC-A/G



■SM1204BC-R/B

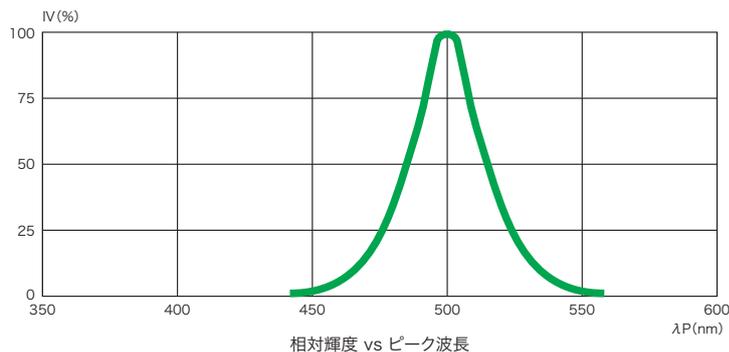
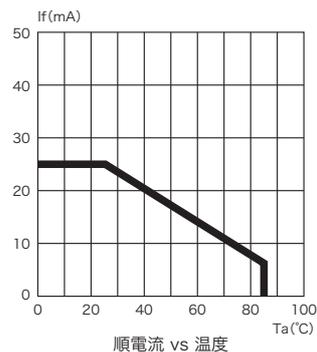
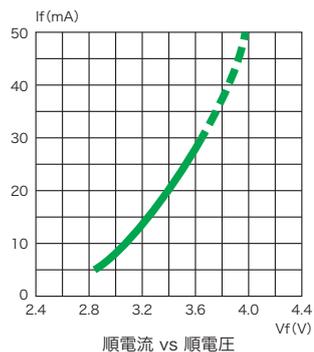


■SM1204BC-R/G

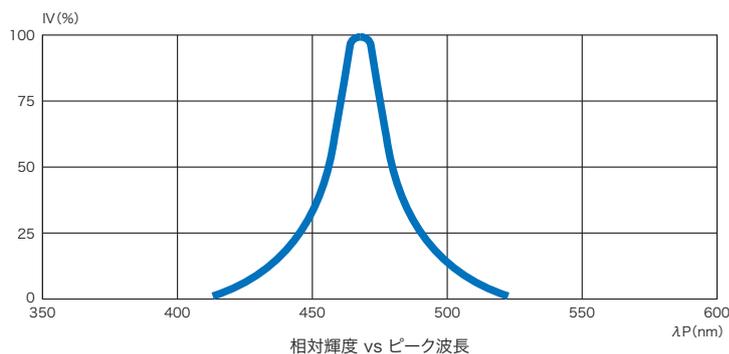
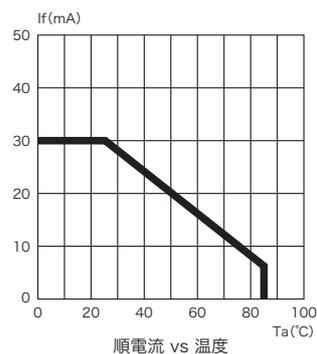
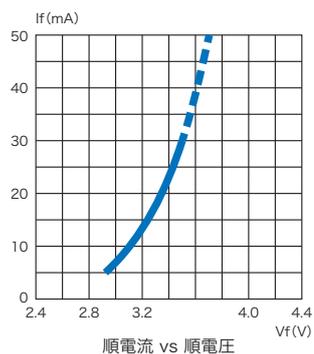


(寸法単位:mm)

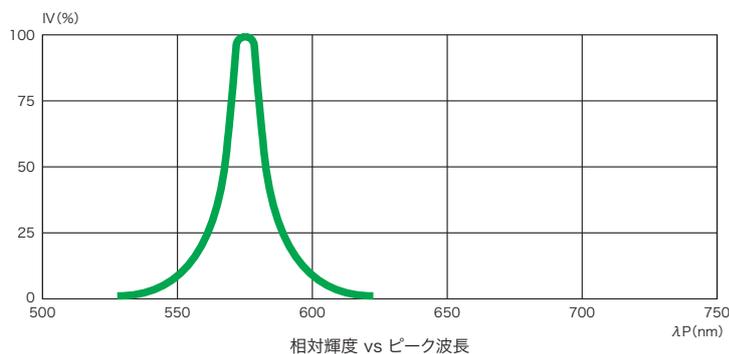
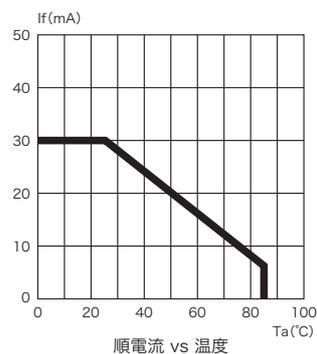
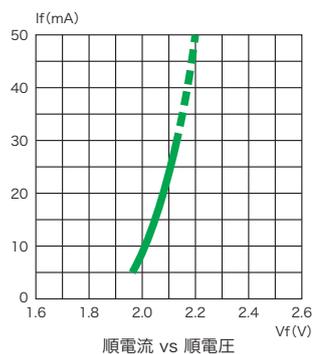
### ■SM1204PGC



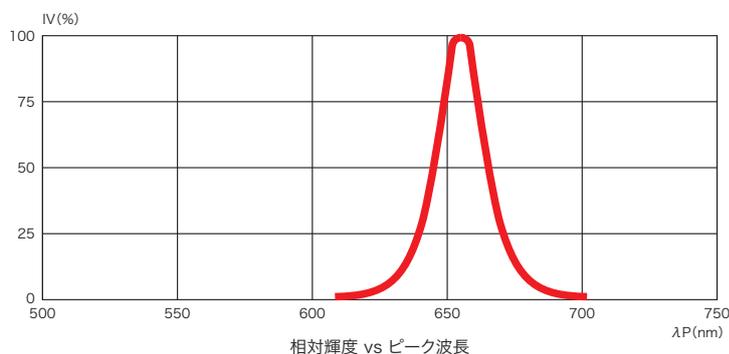
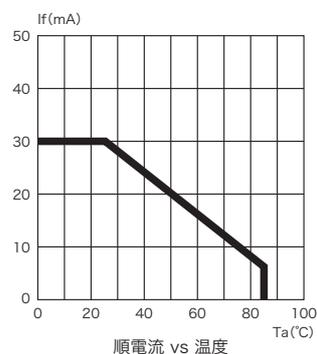
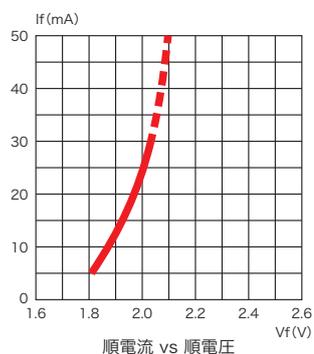
### ■SM1204SBWC



### ■SM1204SGC

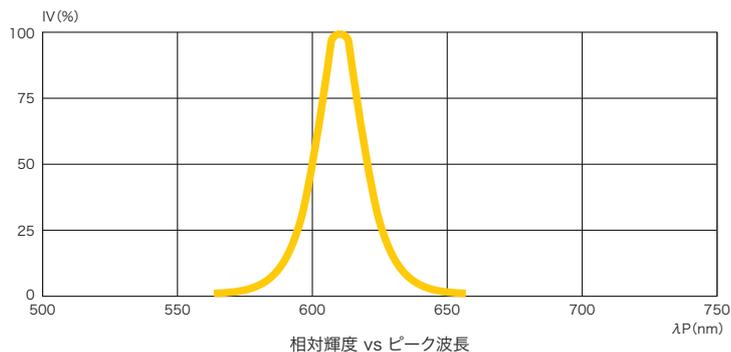
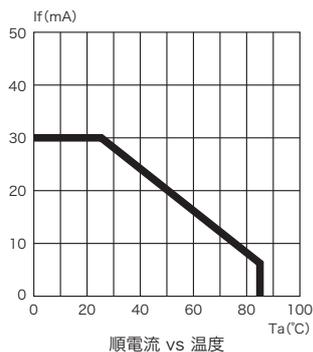
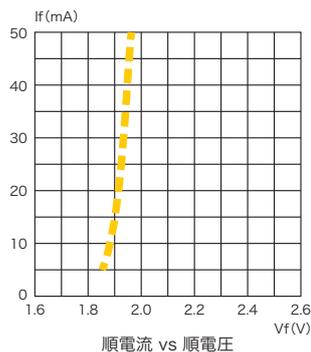


### ■SM1204SRC

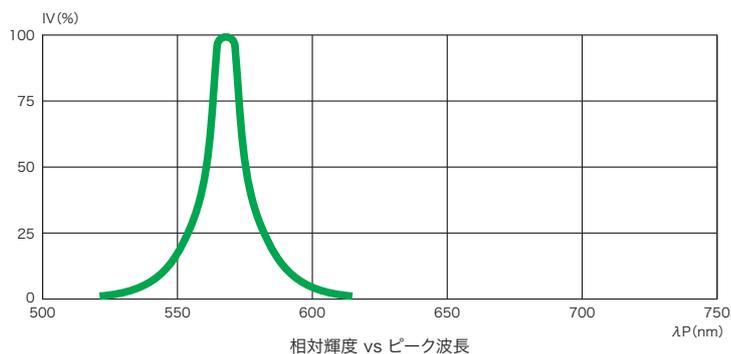
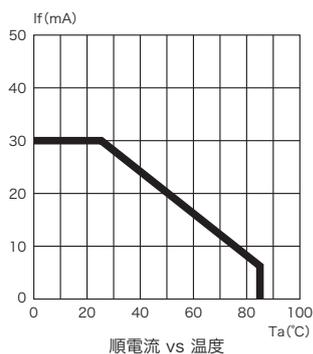
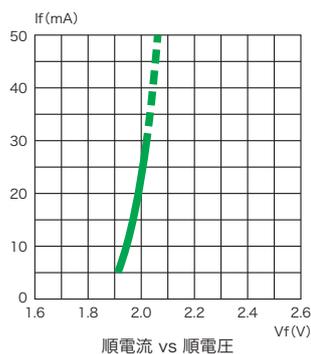


(寸法単位:mm)

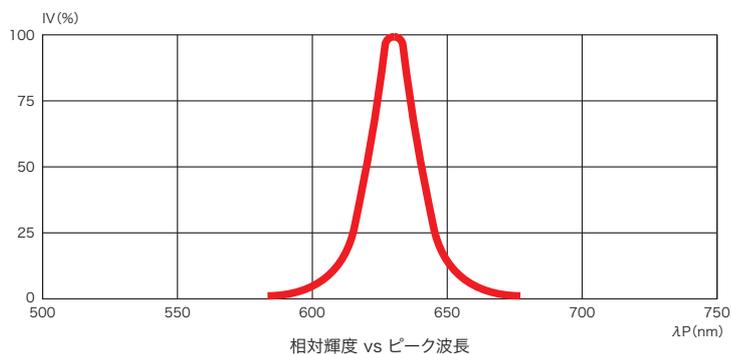
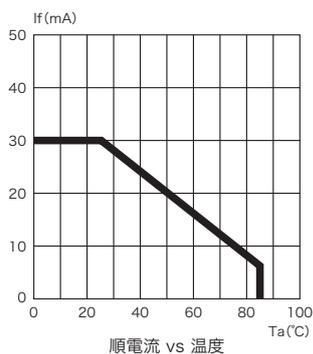
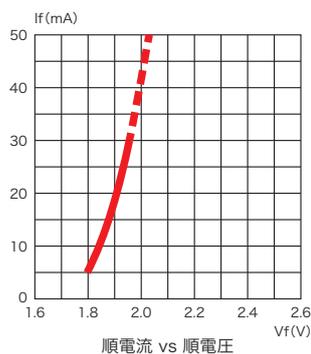
■SM1204UAC



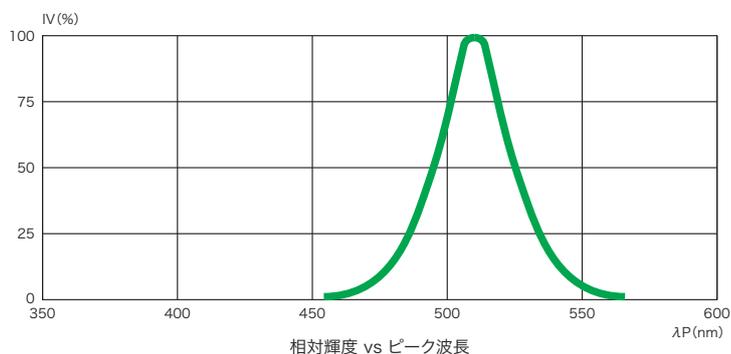
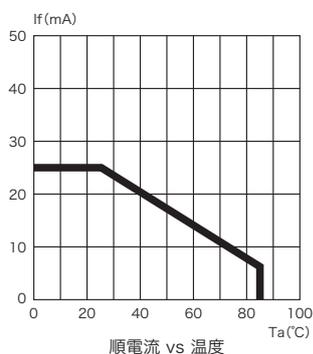
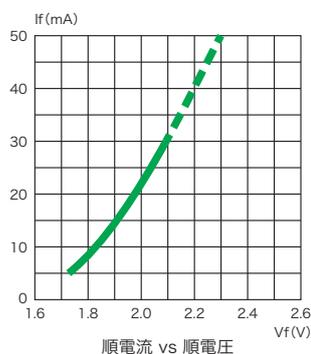
■SM1204UGC



■SM1204UOC

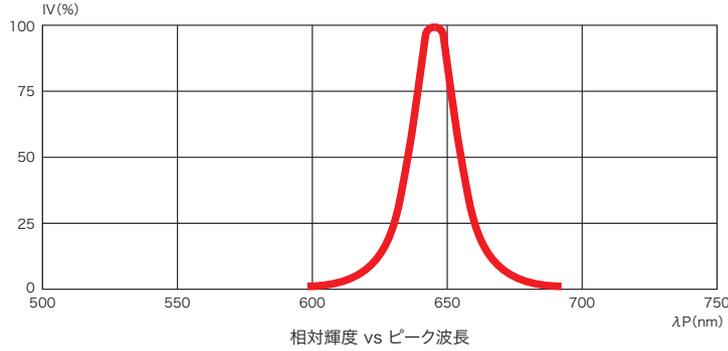
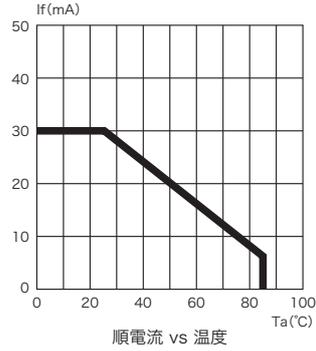
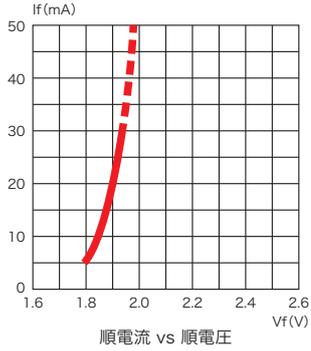


■SM1204UPGC

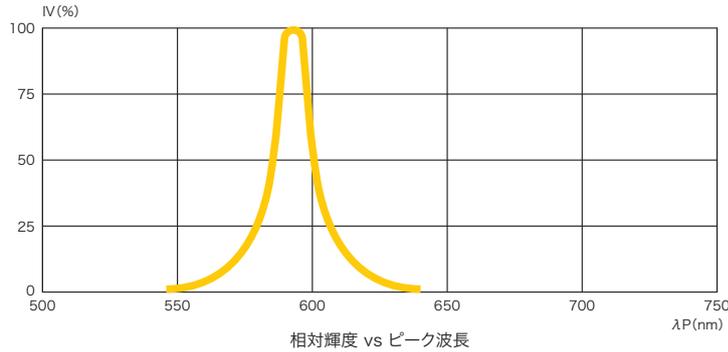
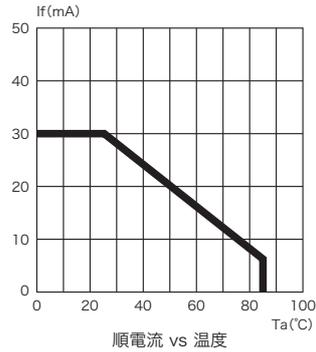
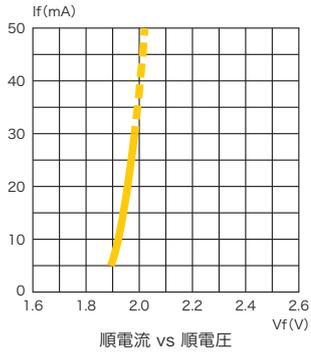


(寸法単位:mm)

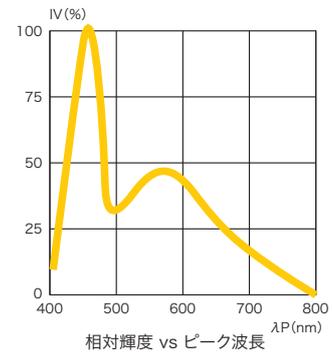
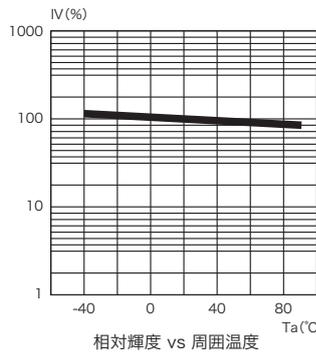
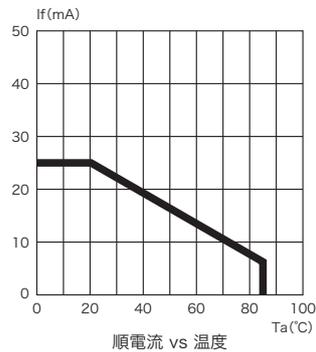
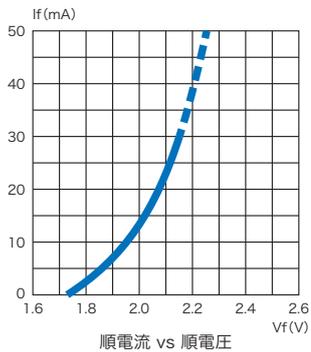
■SM1204URC



■SM1204UYC



■SM1204UWC



■SM1204RGB

