




Bi-Color Chip LEDs with Reflector

1210 <3.0×2.5 t=1.3mm> Standard and High Brightness Type



SML-02* Series

Emitting Color	Part No.		Blue	Green(Yellowish Green)	Red	
Material			InGaN on SiC	GaP	GaAsP on GaP	AlGaInP on GaAs
Package Size(mm)	 3025(1210) 3.0×2.5(t=1.3)	 				

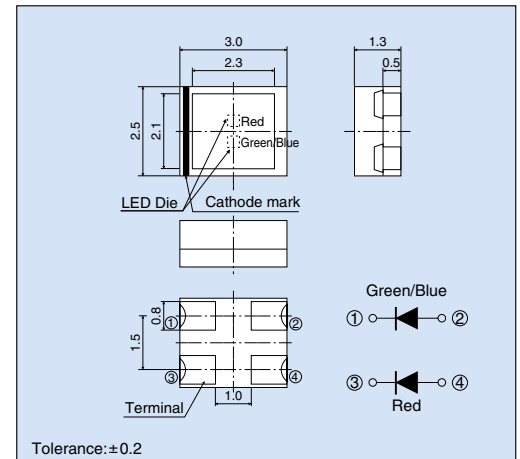
(note) "-" will be taken out for emitting color B/E series.

Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation Pb (mW)	Forward current IF (mA)	Peak forward current I _{FP} (mA)	Reverse voltage VR (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
SML-020MVT	Green (Yellowish Green)	60	25	60 ^{*1}	4	-30 to +85	-40 to +85
	Red	80	30	80 ^{*2}	5		
SML022BUT	Blue	80	30	80 ^{*2}	5	-30 to +85	-40 to +100
	Red	50	30	80 ^{*2}	5		

*1: Duty ≤ 1/5, pulse width ≤ 1ms. *2: Duty ≤ 1/10, 1kHz.

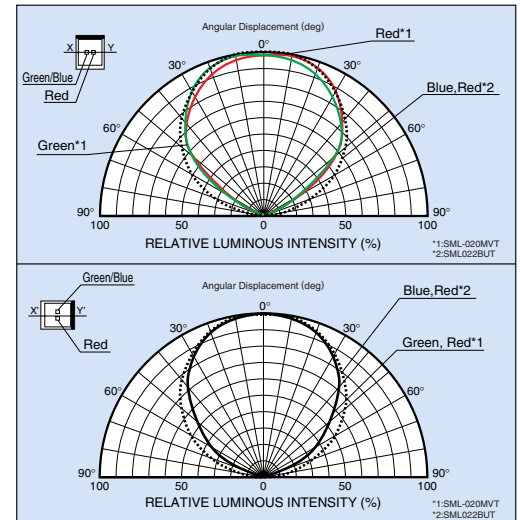
Dimensions (Unit:mm)



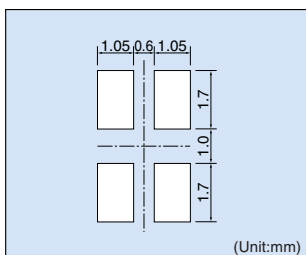
Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage VF		Reverse current IR		Light wavelength			Brightness Iv		
		Typ. (V)	IF (mA)	Max. (μA)	VR (V)	Dominant λD (nm)	Peak λp (nm)	Half-wave Δλ (nm)	Min. (mcd)	Typ. (mcd)	IF (mA)
SML-020MVT	Transparent	2.2			4	—	570	40	9.0	20	
	Colorless	2.0	20	100	5	—	650	—	3.6	6.3	20
SML022BUT	Transparent	3.2			5	470	—	—	56	140	
	Colorless	2.0			5	620	—	—	90	250	

Directivity (Typ.)

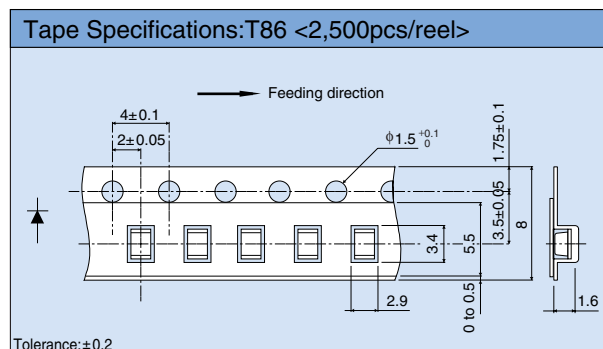


Recommended Pad Layout

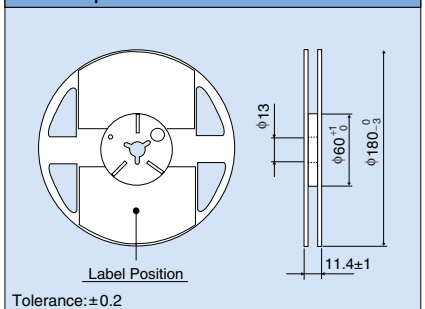


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

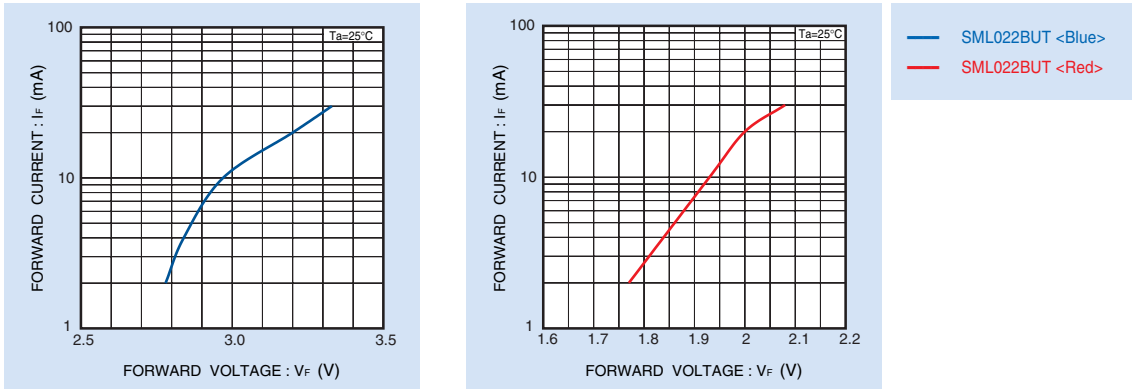


Reel Specifications

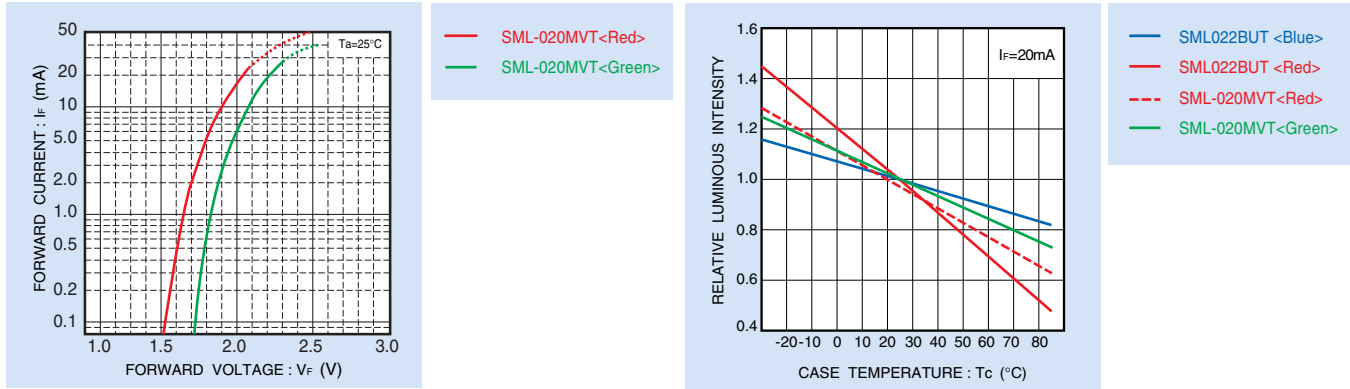


■ Electrical Characteristic Curves

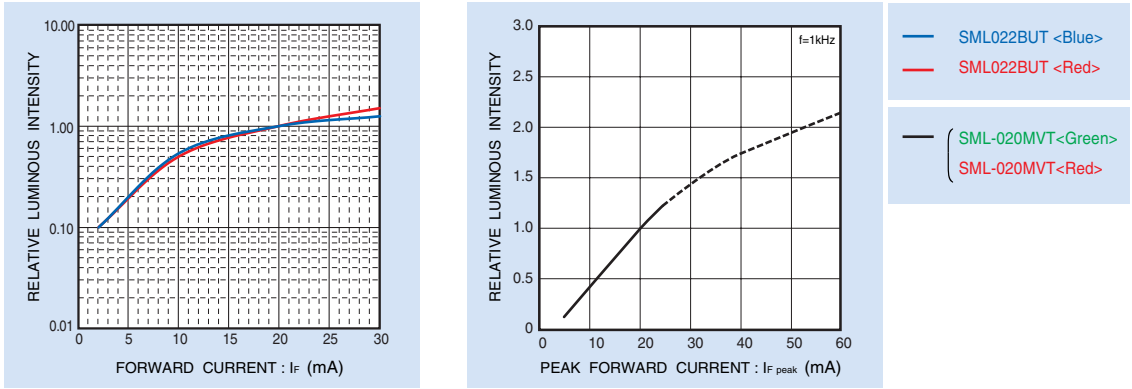
Forward Current - Forward Voltage



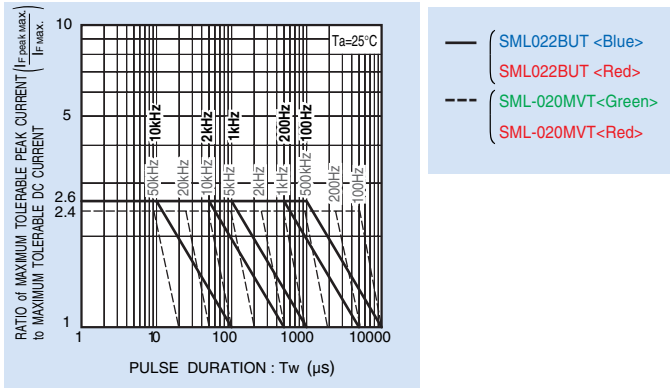
Relative Luminous Intensity - Case Temperature



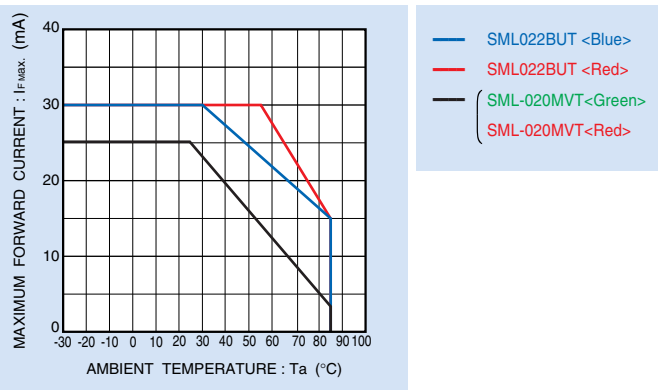
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



Notes

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