

Chip LED with Bi-Color (Multi-Color)

Features

- Package in 8mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Compatible with infrared and vapor phase reflow solder process
- Mono-color type
- RoHS



M3227



Descriptions

- The SMD series enable smaller board size, higher packing density, reduced storage space, and small equipment.
- Besides, light weight makes them ideal for miniature applications.

Applications

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and backlighting in telephone and fax.
- Flat backlight for LCD, switches and symbols.
- General use.

Device Selection Guide

Part No.	Chip			Lens Color
	Color Code	Material	Emitted Color	
TBP2-DGFT3227A2	D	AllnGaP	Super Deep Red	Water Clear
	G	GaP	Green	

Bi-Color (Multi-Color) Chip LED

TBP2-DGFT3227A2

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	Super Deep Red:25	mA
		Green:30	
Peak Forward Current (Duty 1/10 @ 1KHz)	IFP	Super Deep Red:160	mA
		Green:160	
Power Dissipation	Pd	Super Deep Red:60	mW
		Green:100	
Soldering Temperature	Tsol	260 for 5 seconds	°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C

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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Emitted Color	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	Super Deep Red	-----	2.0	-----	mcd	IF =2mA
		Green	-----	1.0	-----		
		Super Deep Red	15	26	-----	mcd	IF =20mA
		Green	8.0	15	-----		
Viewing Angle	2θ1/2	-----	-----	140	-----	deg	
Peak Wavelength	λp	Super Deep Red	-----	650	-----	nm	
		Green	-----	570	-----		
Dominant Wavelength	λd	Super Deep Red	-----	639	-----	nm	
		Green	-----	571	-----		
Spectrum Radiation Bandwidth	Δλ	Super Deep Red	-----	20	-----	nm	
		Green	-----	30	-----		
Forward Voltage	VF	Super Deep Red	-----	2.0	2.4	V	
		Green	1.7	2.1	2.4		
Reverse Current	IR	Super Deep Red	-----	-----	10	μA	VR=5V
		Green	-----	-----	10		

Notes: Tolerance of Luminous Intensity ±10%

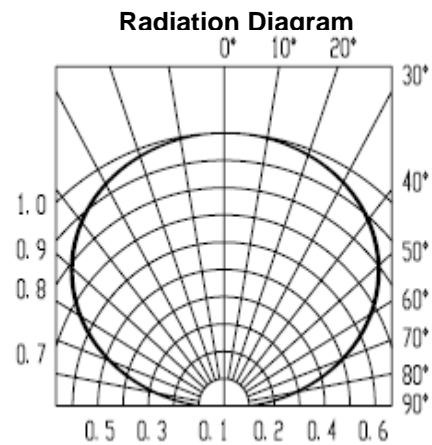
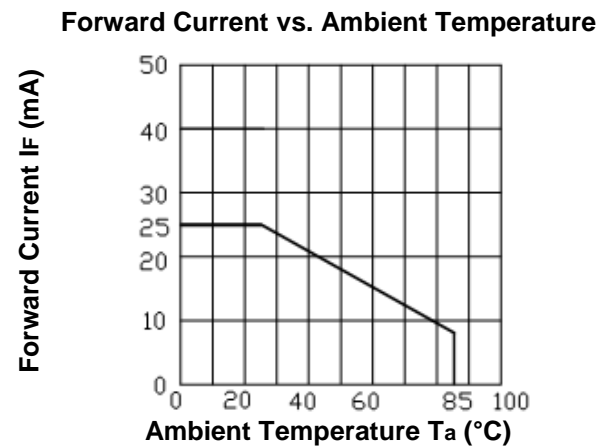
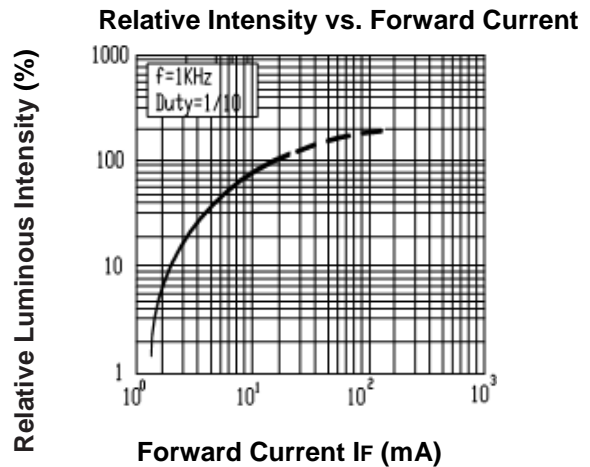
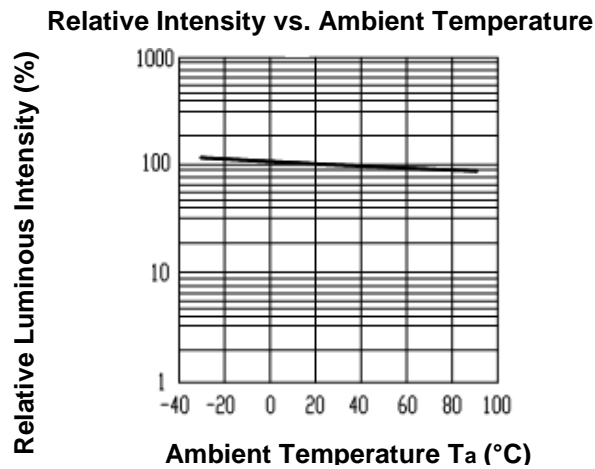
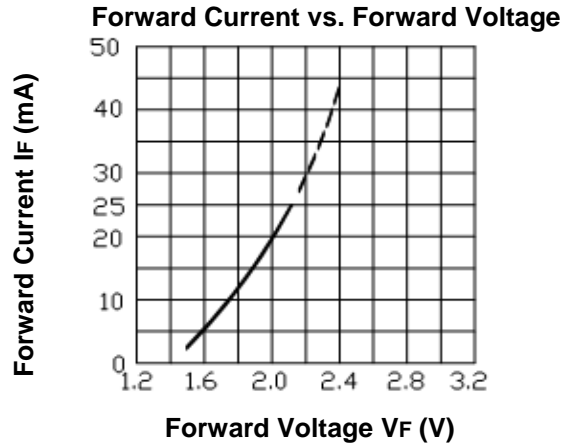
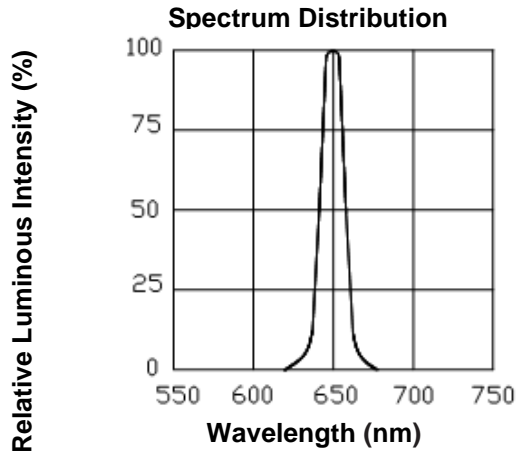
Tolerance of Dominant wavelength ±1nm

Tolerance of Forward Voltage ±0.1V

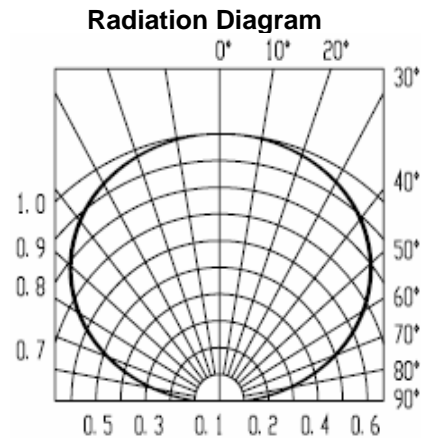
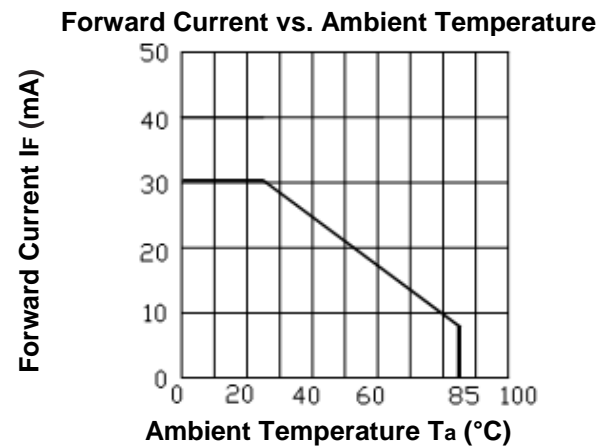
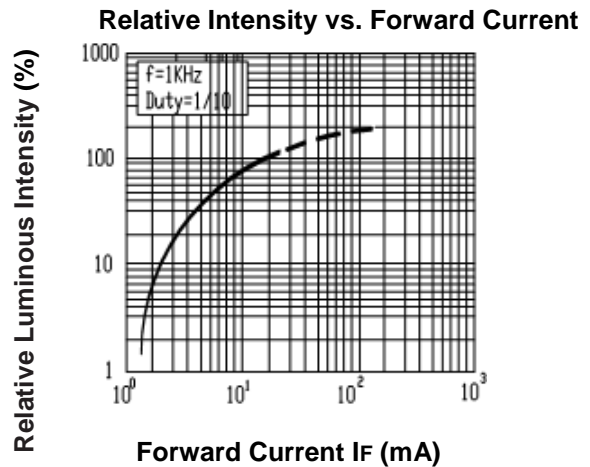
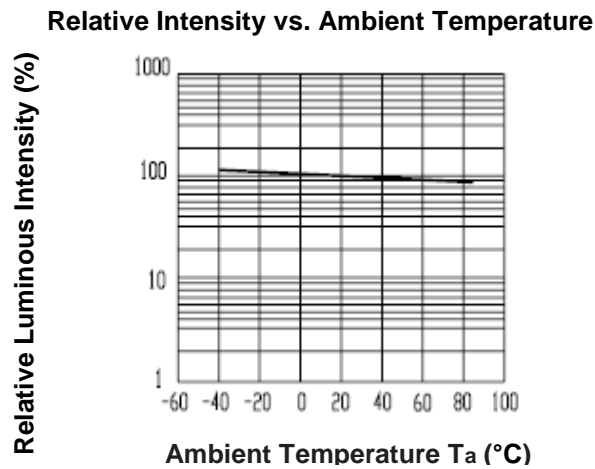
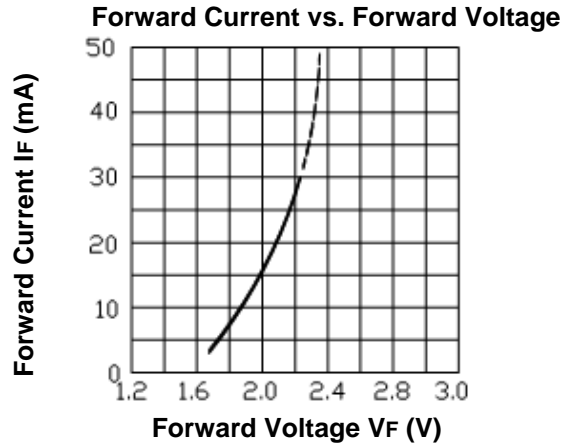
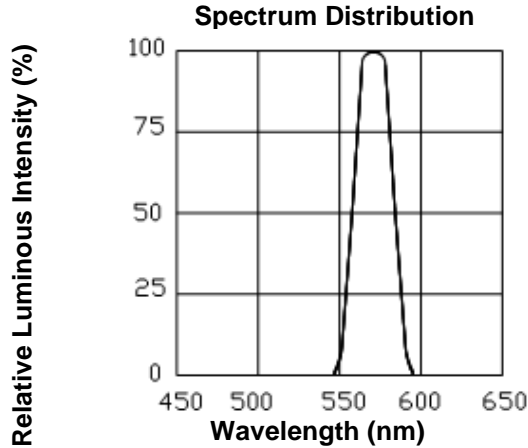
Bi-Color (Multi-Color) Chip LED

TBP2-DGFT3227A2

Typical Electro-Optical Characteristics Curves ($T_a=25^\circ\text{C}$) Red



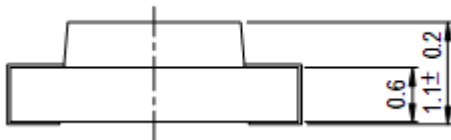
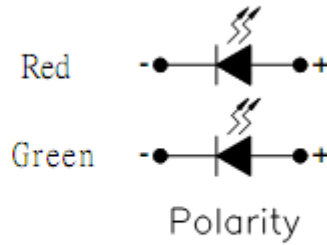
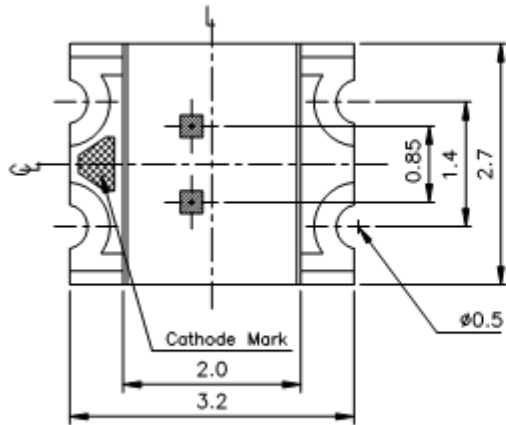
Typical Electro-Optical Characteristics Curves (Ta=25°C) Green



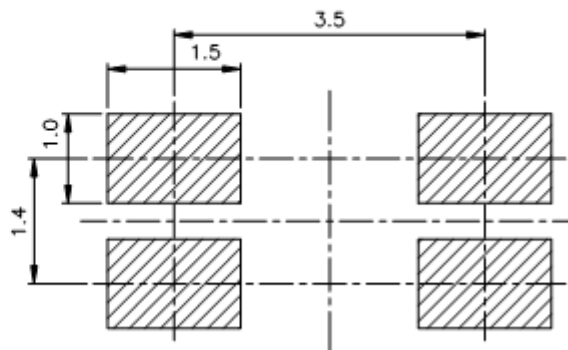
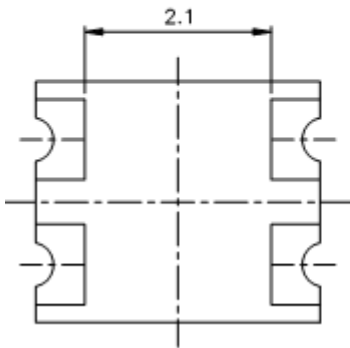
Bi-Color (Multi-Color) Chip LED

TBP2-DGFT3227A2

Package Dimensions (In mm)



For Reflow Soldering

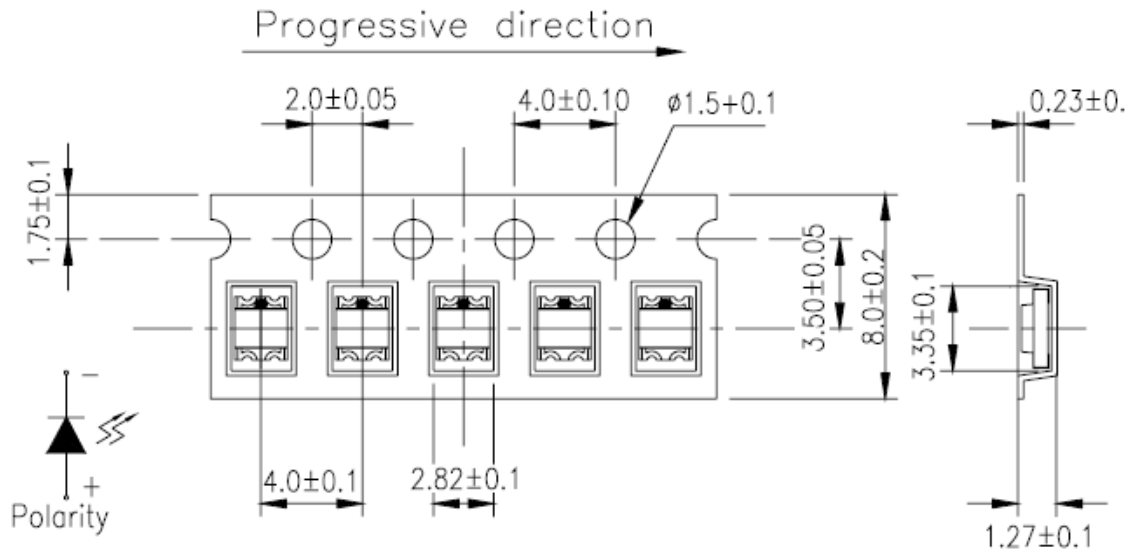


Note: The tolerances unless mentioned is ± 0.1 mm, Unit = mm

Bi-Color (Multi-Color) Chip LED

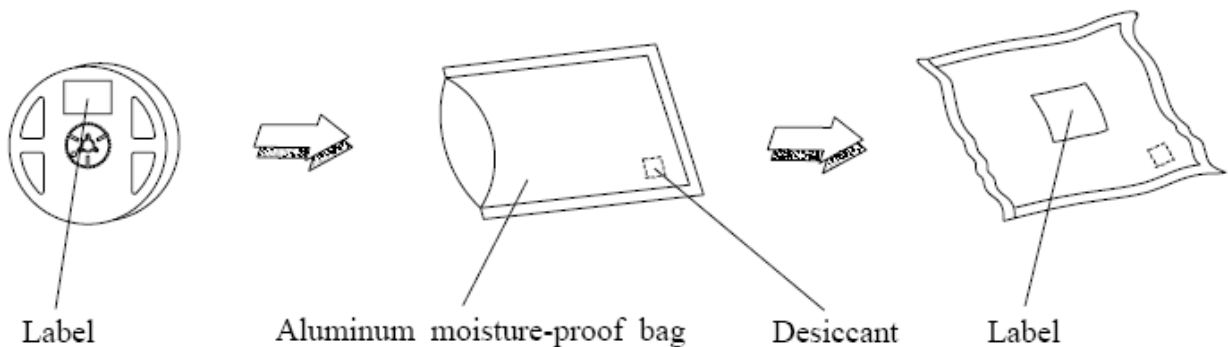
TBP2-DGFT3227A2

Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



Note: The tolerances unless mentioned is ± 0.1 mm.

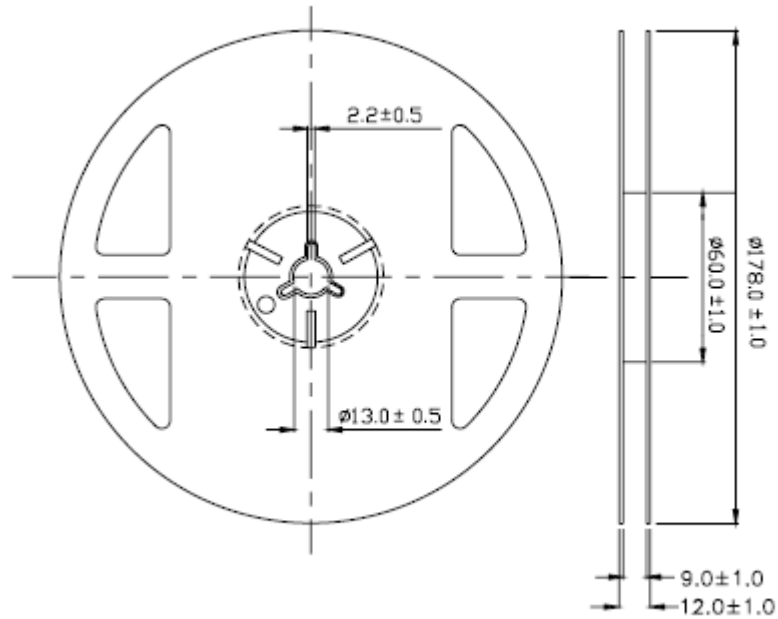
Moisture Resistant Packaging



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Reel Dimensions (Unit=mm):



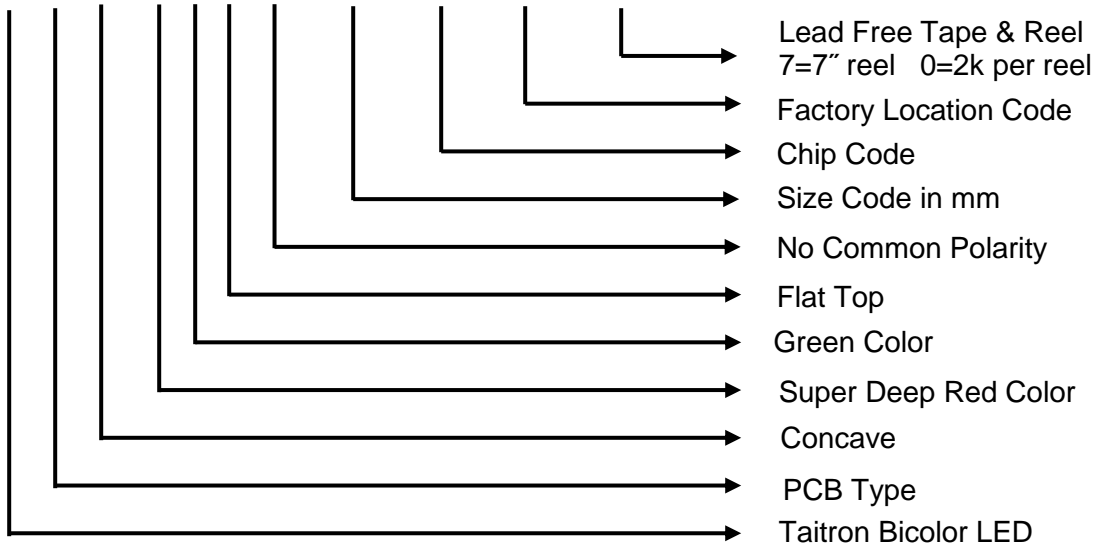
Note: The tolerances unless mentioned is ± 0.1 mm.

Bi-Color (Multi-Color) Chip LED

TBP2-DGFT3227A2

Ordering Information

TBP2 - DGFT - 3227 - A2 - 92 - TR70

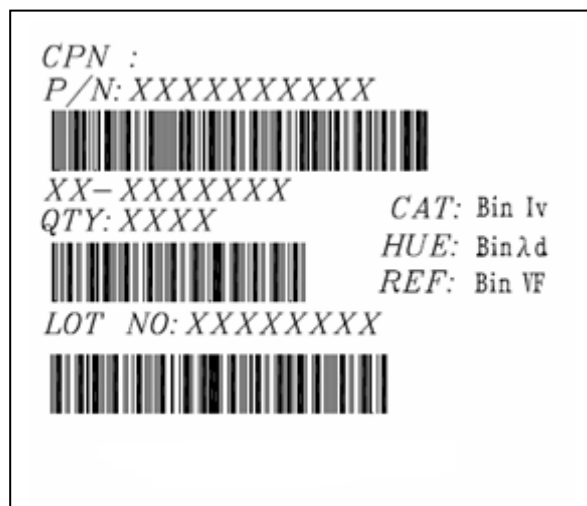


Label Explanation

CAT: Luminous Intensity Rank

HUE: Dom. Wavelength Rank

REF: Forward Voltage Rank



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