

Part Number: TBC30-12SURKCGKWA

Hyper Red
Green

Features

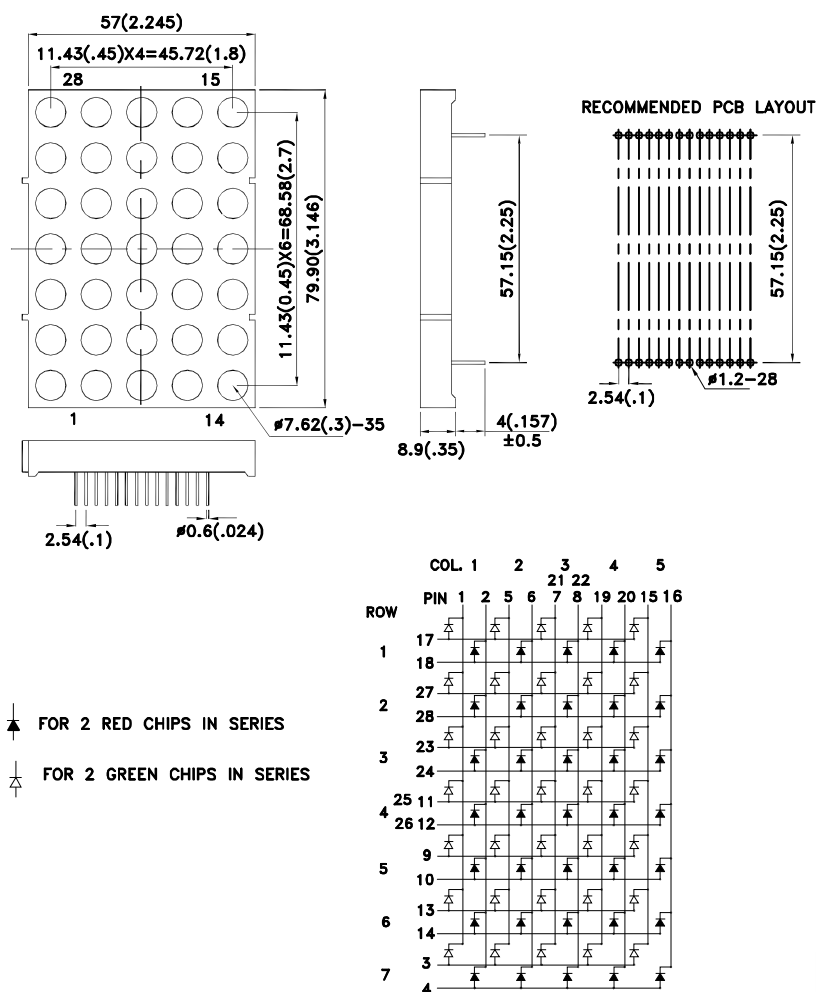
- 3.0 inch matrix height.
- Dot size 7.62mm.
- Low current operation.
- High contrast and light output.
- Stackable horizontally.
- Column cathode and column anode available.
- Easy mounting on P.C. boards or sockets.
- Multicolor available.
- Mechanically rugged.
- Standard : gray face, white dot.

Description

The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
TBC30-12SURKCGKWA	Hyper Red (AlGaInP)	WHITE DIFFUSED	44000	149000	Column Cathode
	Green (AlGaInP)		26000	86000	

Note:

1. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ peak	Peak Wavelength	Hyper Red Green	650 574		nm	IF=20mA
λ D [1]	Dominant Wavelength	Hyper Red Green	630 570		nm	IF=20mA
$\Delta\lambda$ 1/2	Spectral Line Half-width	Hyper Red Green	28 20		nm	IF=20mA
C	Capacitance	Hyper Red Green	35 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage (Per Dot)	Hyper Red Green	3.9 4.2	5.0 5.0	V	IF=20mA
IR	Reverse Current (Per Dot)	Hyper Red Green		10 10	uA	VR = 10V

Notes:

1.Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

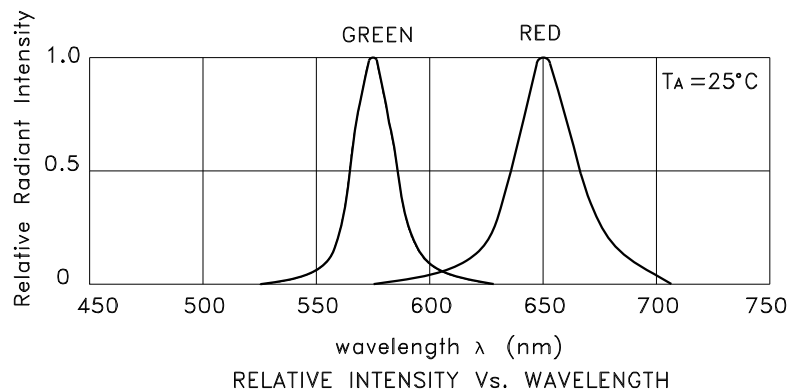
Absolute Maximum Ratings at TA=25°C

Parameter	Hyper Red	Green	Units
Power dissipation (Per Dot)	150	150	mW
DC Forward Current (Per Dot)	30	30	mA
Peak Forward Current [1] (Per Dot)	185	150	mA
Reverse Voltage (Per Dot)	10		V
Operating/storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 3~5 Seconds		

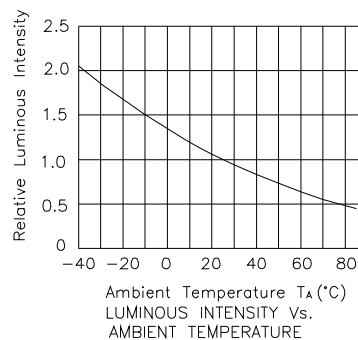
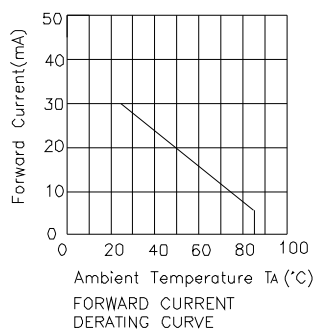
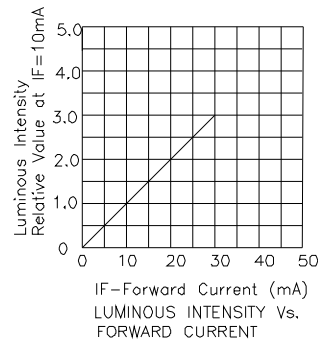
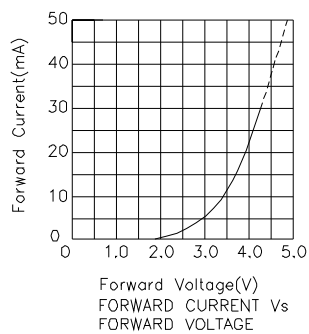
Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

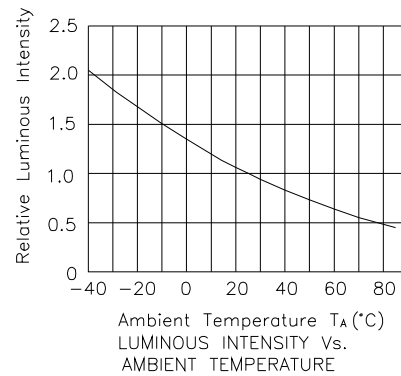
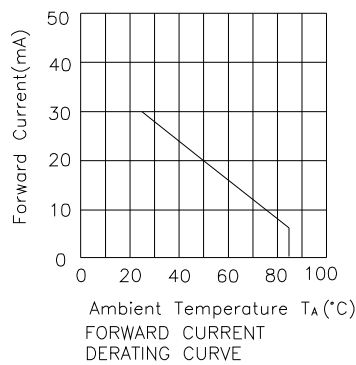
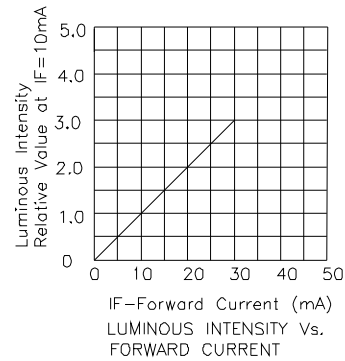
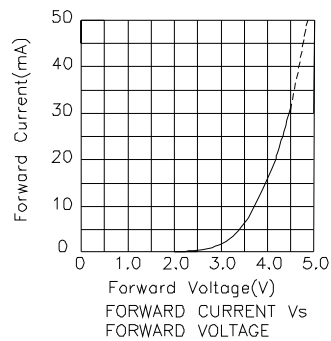
2. 2mm below package base.



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Hyper Red

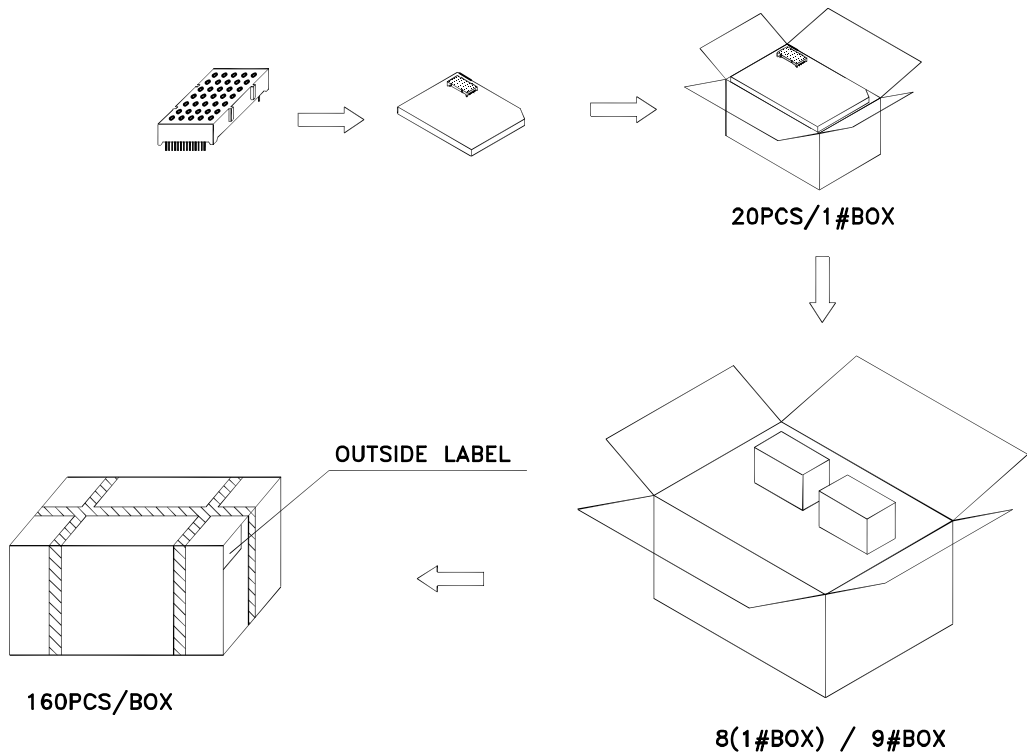


Green



PACKING & LABEL SPECIFICATIONS

TBC30-12SURKCGKWA



Inside Label Paste On The 1#BOX

Kingbright	TYPE: TBx30-12xxx	PASSED xx xx xx FQCX	Date
	QTY: 20 PCS CODE: xx		
XXXXXXXXXX-XXXX		Number OF FQC	
LOT NO.		RoHS Compliant	

Outside Label Paste On The Box

XXXXXX	XXXXXXXXXX	Bin Code	Number OF QA
TBx30-12xxx			
160 PCS	XX	QAx xx xx xx PASSED	Date
		RoHS Compliant	