

PRELIMINARY SPEC

Part Number: TC16-31SURKWB

Hyper Red

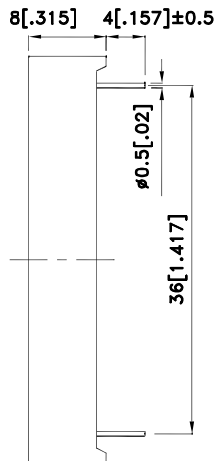
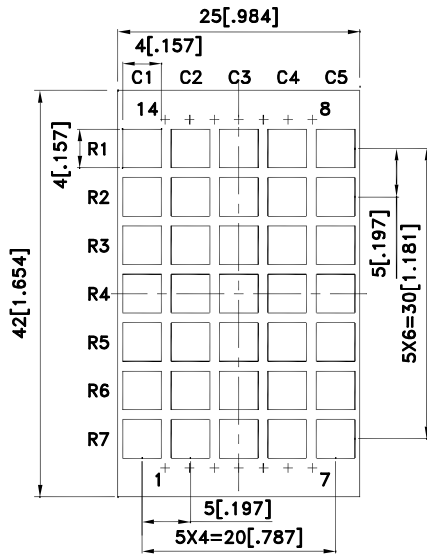
Features

- 1.338 inch matrix height.
- Low current operation.
- High contrast and light output.
- Stackable horizontally and vertically.
- Easy mounting on P.C. boards or sockets.
- Mechanically rugged.
- RoHS compliant.

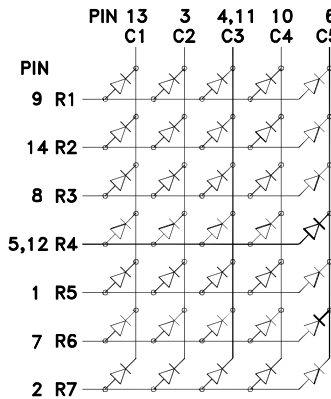
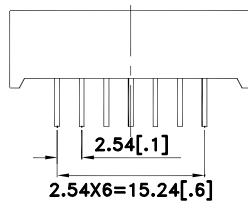
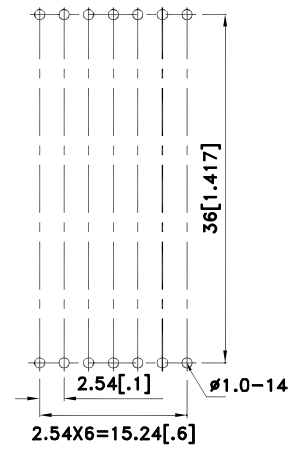
Description

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

Package Dimensions & Internal Circuit Diagram



RECOMMENDED PCB LAYOUT



Notes:

1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01") unless otherwise noted.
2. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
TC16-31SURKWB	Hyper Red (AlGaInP)	WHITE DIFFUSED	44000	100000	Column Cathode

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	650		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Hyper Red	630		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Hyper Red	28		nm	I _F =20mA
C	Capacitance	Hyper Red	35		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Red	1.95	2.5	V	I _F =20mA
I _R	Reverse Current	Hyper Red		10	uA	V _R =5V

Notes:

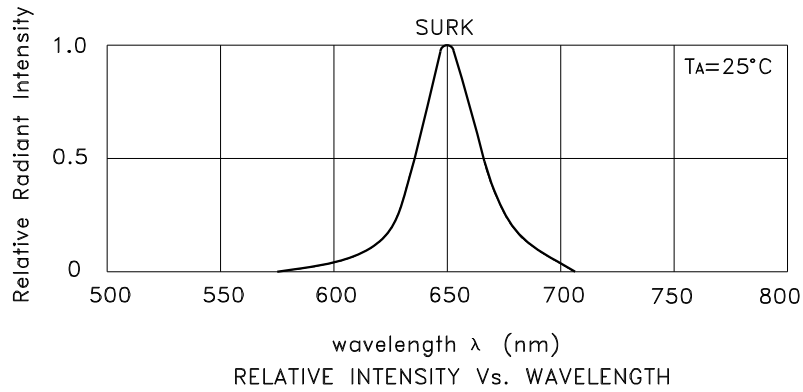
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Hyper Red	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	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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