P/N: TC40-11EWA HIGH EFFICIENCY RED

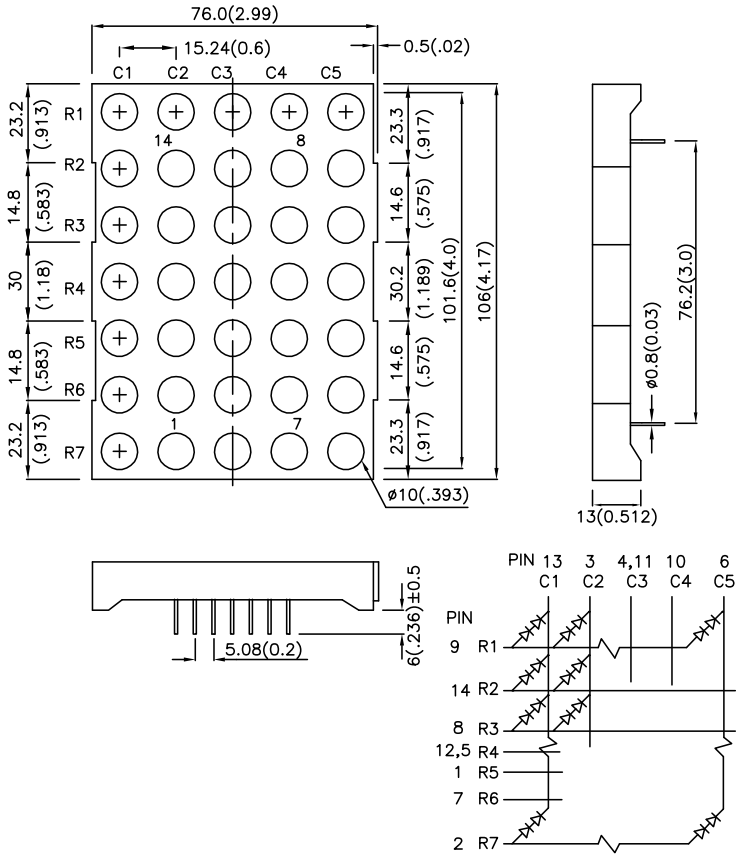
Features

- ●4.0 INCH MATRIX HEIGHT.
- ●DOT SIZE 10mm.
- ●LOW CURRENT OPERATION.
- ●HIGH CONTRAST AND LIGHT OUTPUT.
- ●COMPATIBLE WITH ASCII AND EBCDIC CODES.
- ●STACKABLE HORIZONTALLY.
- ●COLUMN CATHODE AVAILABLE.
- ●EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- ●MULTICOLOR AVAILABLE.
- ●MECHANICALLY RUGGED.
- ●STANDARD : GRAY FACE, WHITE DOT.
- ●RoHS COMPLIANT.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram



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.

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Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) @ 10mA		Description
			Min.	Typ.	
TC40-11EWA	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	3000	16000	Column Cathode

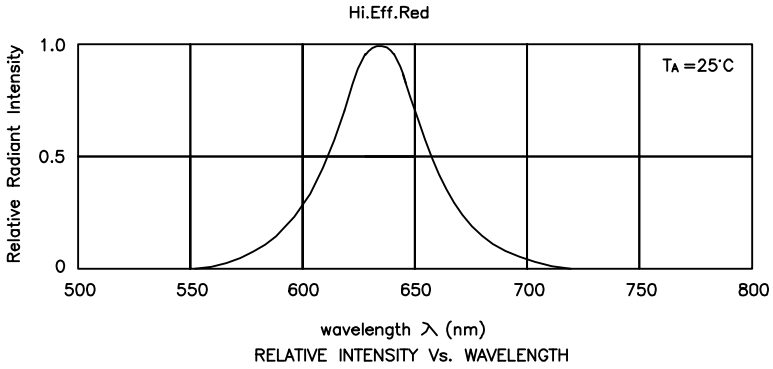
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	I_F=20mA
λD	Dominant Wavelength	High Efficiency Red	625		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	I_F=20mA
C	Capacitance (Per Chip)	High Efficiency Red	15		pF	V_F=0V;f=1MHz
V_F	Forward Voltage (Per Dot)	High Efficiency Red	4.0	5.0	V	I_F=20mA
I_R	Reverse Current (Per Dot)	High Efficiency Red		10	uA	V_R = 10V

Absolute Maximum Ratings at T_A=25°C

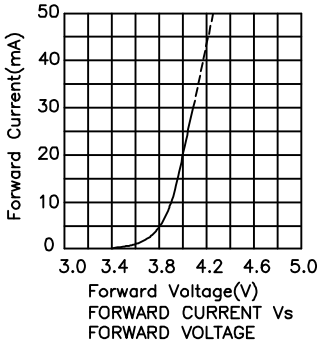
Parameter	High Efficiency Red	Units
Power dissipation (Per Dot)	150	mW
DC Forward Current (Per Dot)	30	mA
Peak Forward Current [1] (Per Dot)	160	mA
Reverse Voltage (Per Dot)	10	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature[2]	260°C For 5 Seconds	

Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.

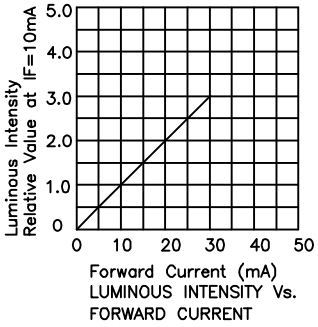


RELATIVE INTENSITY Vs. WAVELENGTH

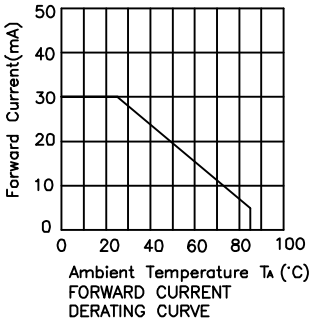
High Efficiency Red **TC40-11EWA**



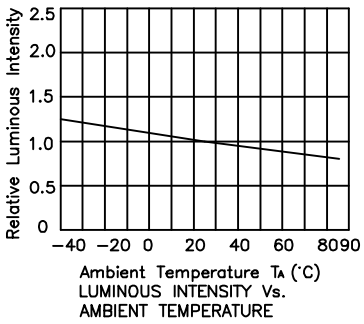
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

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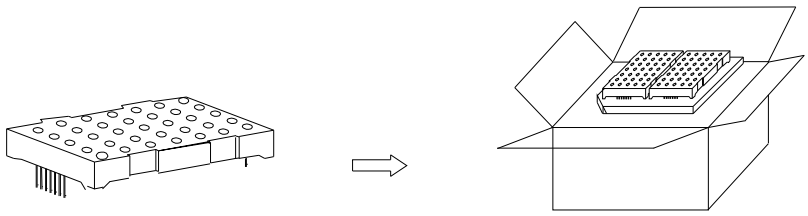
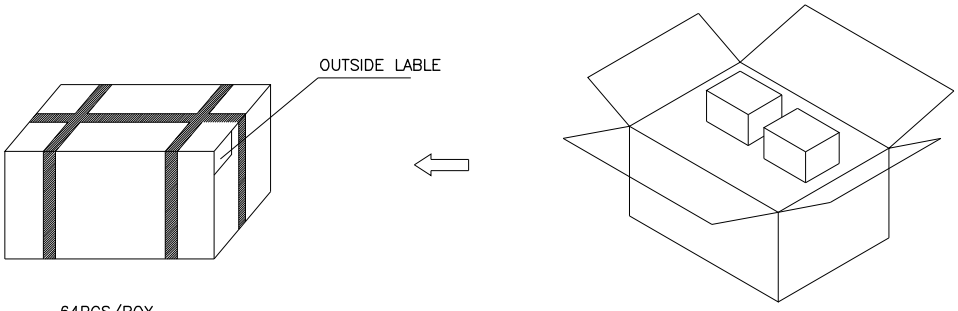
PACKING & LABEL SPECIFICATIONS **TC40-11EWA**



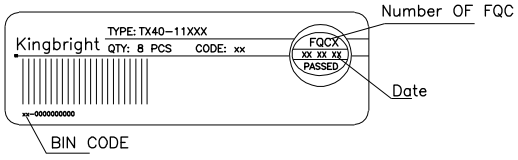
8PCS/1# BOX



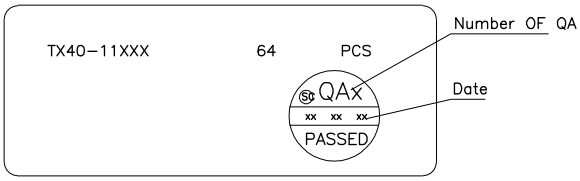
64PCS/BOX

8(1#)BOX/9#BOX

Inside LABEL Paste On The IC-pipe



Outside LABEL Paste On The Box



Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity/ luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.