

PSA12-11EWA

HIGH EFFICIENCY RED

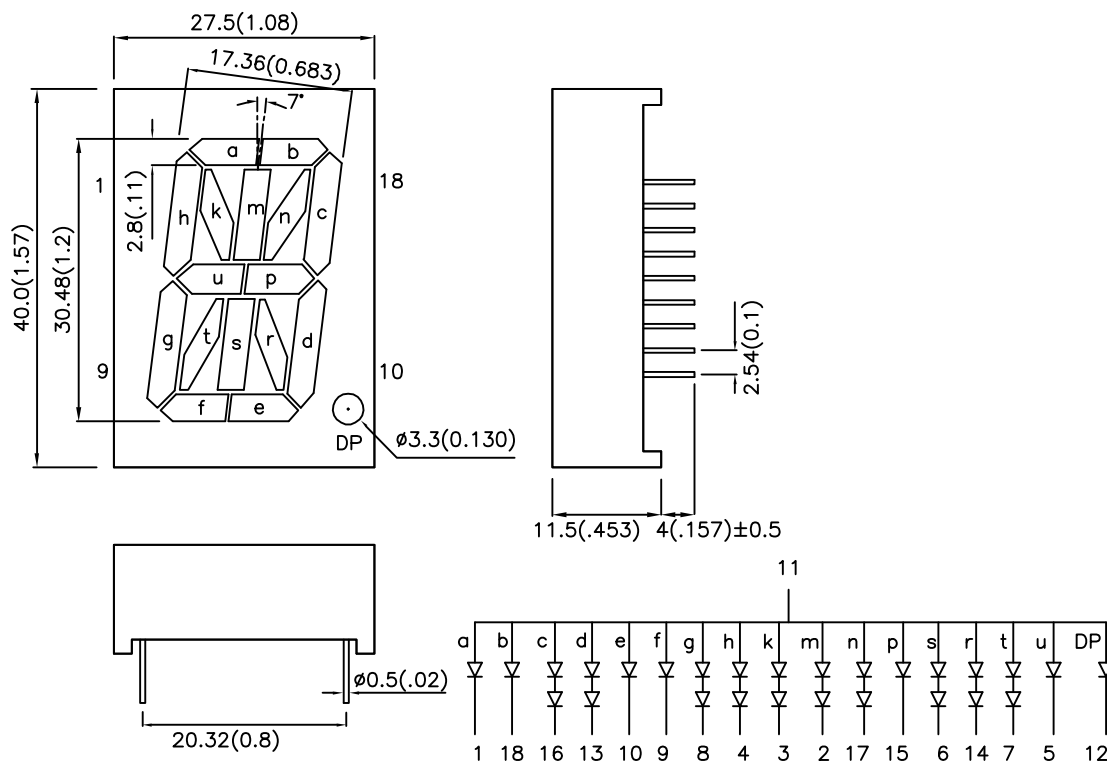
Features

- 1.2 INCH CHARACTER HEIGHT .
- LOW CURRENT OPERATION.
- HIGH CONTRAST AND LIGHT OUTPUT.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- CATEGORIZED FOR LUMINOUS INTENSITY.
- MECHANICALLY RUGGED.
- STANDARD: GRAY FACE, WHITE SEGMENT.
- 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 $\pm 0.25(0.01)$ unless otherwise noted.
2. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) @ 10mA		Description
			Min.	Typ.	
PSA12-11EWA	HIGH EFFICIENCY RED(GaAsP/GaP)	WHITE DIFFUSED	3000	12000	Common Anode, Rt. Hand Decimal

Electrical / Optical Characteristics at TA=25°C

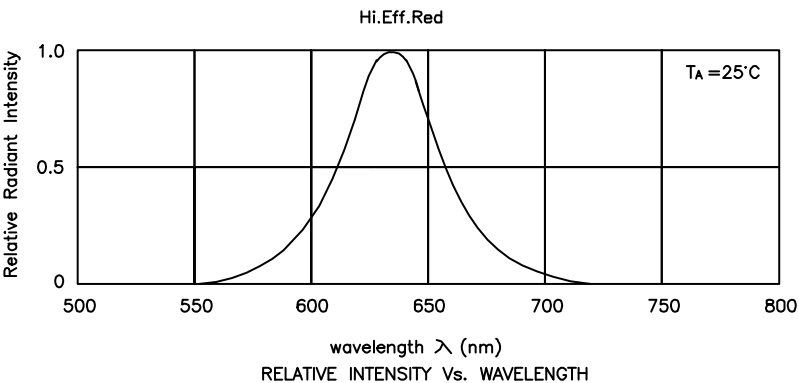
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA
λ_D	Dominant Wavelength	High Efficiency Red	625		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA
C	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
VF	Forward Voltage	c,d,g,h,k,m,n,s,r,t	4.0	5.0	V	IF=20mA
		a,b,e,f,p,u and DP	2.0	2.5		
IR	Reverse Current	c,d,g,h,k,m,n,s,r,t		10	uA	VR = 10V VR = 5V
		a,b,e,f,p,u and DP		10		

Absolute Maximum Ratings at TA=25°C

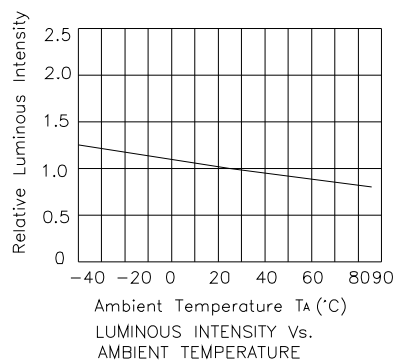
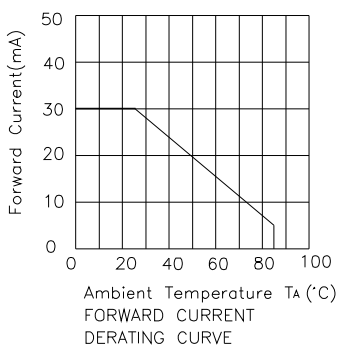
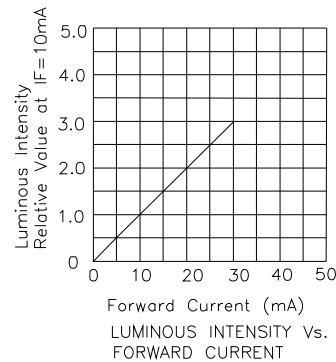
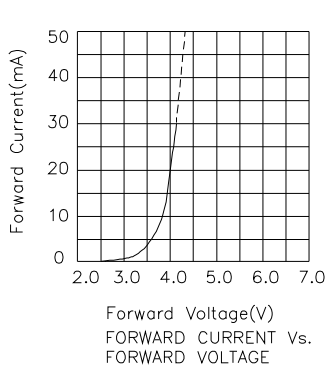
Parameter		High Efficiency Red	Units
Power dissipation	c,d,g,h,k,m,n,s,r,t	150	mW
	a,b,e,f,p,u and DP	105	
DC Forward Current	c,d,g,h,k,m,n,s,r,t	30	mA
	a,b,e,f,p,u and DP	30	
Peak Forward Current [1]	c,d,g,h,k,m,n,s,r,t	160	mA
	a,b,e,f,p,u and DP	160	
Reverse Voltage	c,d,g,h,k,m,n,s,r,t	10	V
	a,b,e,f,p,u and DP	5	
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. 5mm below package base.



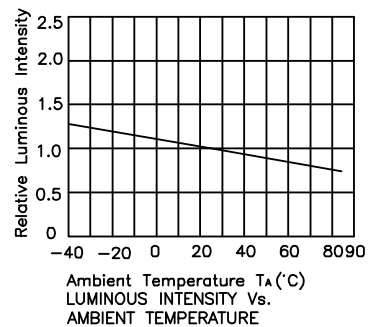
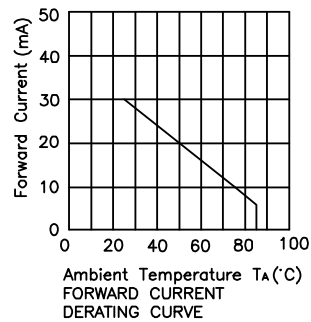
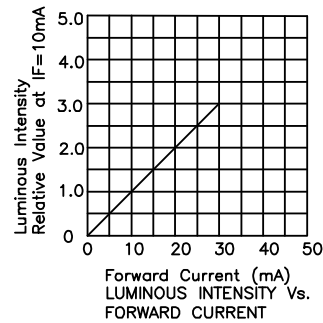
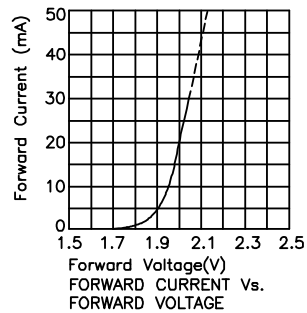
High Efficiency Red PSA12-11EWA



Note:the curves are on the segment c,d,g,h,k,m,n,s,r and t.

High Efficiency Red

PSA12-11EWA



Note: the curves are on the segment a, b, e, f, p, u and DP.

Remarks:

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

1. Wavelength: $\pm 1\text{nm}$
2. Luminous Intensity: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.