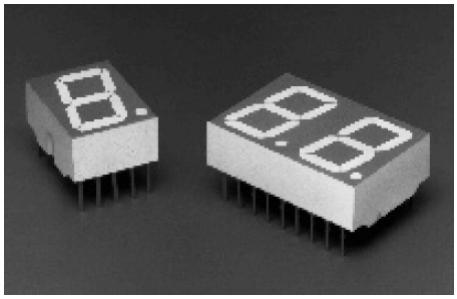
HDSP-550x, HDSP-552x, HDSP-560x, HDSP-562x, HDSP-570x, HDSP-572x, HDSP-H15x, Series

14.2 mm (0.56 inch)
Seven Segment Displays

Data Sheet



Description

The 14.2 mm (0.56 inch) LED seven segment displays are designed for viewing distances up to 7 metres (23 feet). These devices use an industry standard size package and pinout. Both the numeric and ±1 overflow devices feature a right hand decimal point. All devices are available as either common anode or common cathode.

Applications

These displays are ideal for most applications. Pin for pin equivalent displays are also available in a low current design. The low current displays are ideal for portable applications. For additional information see the Low Current Seven Segment Displays data sheet.

Features

- Industry Standard Size
- Industry Standard Pinout
  15.24 mm (0.6 in.) DIP Leads on 2.54 mm (0.1 in.) Centers
- Choice of Colors
  AlGaAs Red, High Efficiency Red, Yellow, Green
- Excellent Appearance
  Evenly Lighted Segments
  Mitered Corners on Segments
  Gray Package Gives Optimum Contrast
  ±50° Viewing Angle
- Design Flexibility
  Common Anode or Common Cathode
  Single and Dual Digits
  Right Hand Decimal Point
  ±1. Overflow Character
- Categorized for Luminous Intensity
  Yellow and Green Categorized for Color
  Use of Like Categories Yields a Uniform Display
- High Light Output
- High Peak Current
- Excellent for Long Digit String Multiplexing
- Intensity and Color Selection Option
  See Intensity and Color Selected Displays Data Sheet
- Sunlight Viewable AlGaAs

Devices

AlGaAs Red HDSP-[1]	HER HDSP-[1]	Yellow HDSP-	Green HDSP-	Description	Package Drawing
H151	5501	5701	5601	Common Anode Right Hand Decimal	A
H153	5503	5703	5603	Common Cathode Right Hand Decimal	B
H157	5507		5607	Common Anode ±1. Overflow	C
H158	5508		5608	Common Cathode ±1. Overflow	D
	5521	5721	5621	Two Digit Common Anode Right Hand Decimal	E
	5523	5723	5623	Two Digit Common Cathode Right Hand Decimal	F

Note:
1. These displays are recommended for high ambient light operation. Please refer to the HDSP-H10X/K12X AlGaAs and HDSP-555X HER data sheet for low current operation.

Electrical/Optical Characteristics at $T_A = 25°C$

AlGaAs Red

Device Series HDSP-	Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
H15X	Luminous Intensity/Segment[1,2,5] (Digit Average)	I_V	9.1	16.0		mcd	I_F = 20 mA
	Forward Voltage/Segment or DP	V_F		1.8		V	I_F = 20 mA
				2.0	3.0		I_F = 100 mA
	Peak Wavelength	λ_{PEAK}		645		nm	
	Dominant Wavelength[3]	λ_d		637		nm	
	Reverse Voltage/Segment or DP[4]	V_R	3.0	15		V	I_R = 100 µA
	Temperature Coefficient of V_F/Segment or DP	ΔV_F/°C		-2		mV/°C	
	Thermal Resistance LED Junction-to-Pin	$R\theta_{J\text{-}Pin}$		400		°C/W/ Seg	

High Efficiency Red

Device Series HDSP-	Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
55XX	Luminous Intensity/Segment[1,2,6] (Digit Average)	I_V	900	2800		µcd	I_F = 10 mA
				3700			I_F = 60 mA Peak: 1 of 6 df
	Forward Voltage/Segment or DP	V_F		2.1	2.5	V	I_F = 20 mA
	Peak Wavelength	λ_{PEAK}		635		nm	
	Dominant Wavelength[3]	λ_d		626		nm	
	Reverse Voltage/Segment or DP[4]	V_R	3.0	30		V	I_R = 100 µA
	Temperature Coefficient of V_F/Segment or DP	ΔV_F/°C		-2		mV/°C	
	Thermal Resistance LED Junction-to-Pin	$R\theta_{J\text{-}Pin}$		345		°C/W/ Seg	