

CA56-11EWA/SRWA/YWA/GWA  
 CC56-11EWA/SRWA/YWA/GWA  
 CA56-12EWA/SRWA/YWA/GWA  
 CC56-12EWA/SRWA/YWA/GWA  
 CA56-21EWA/SRWA/YWA/GWA  
 CC56-21EWA/SRWA/YWA/GWA

### Features

- 0.56 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- I.C. COMPATIBLE.
- CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE SEGMENT.

### Description

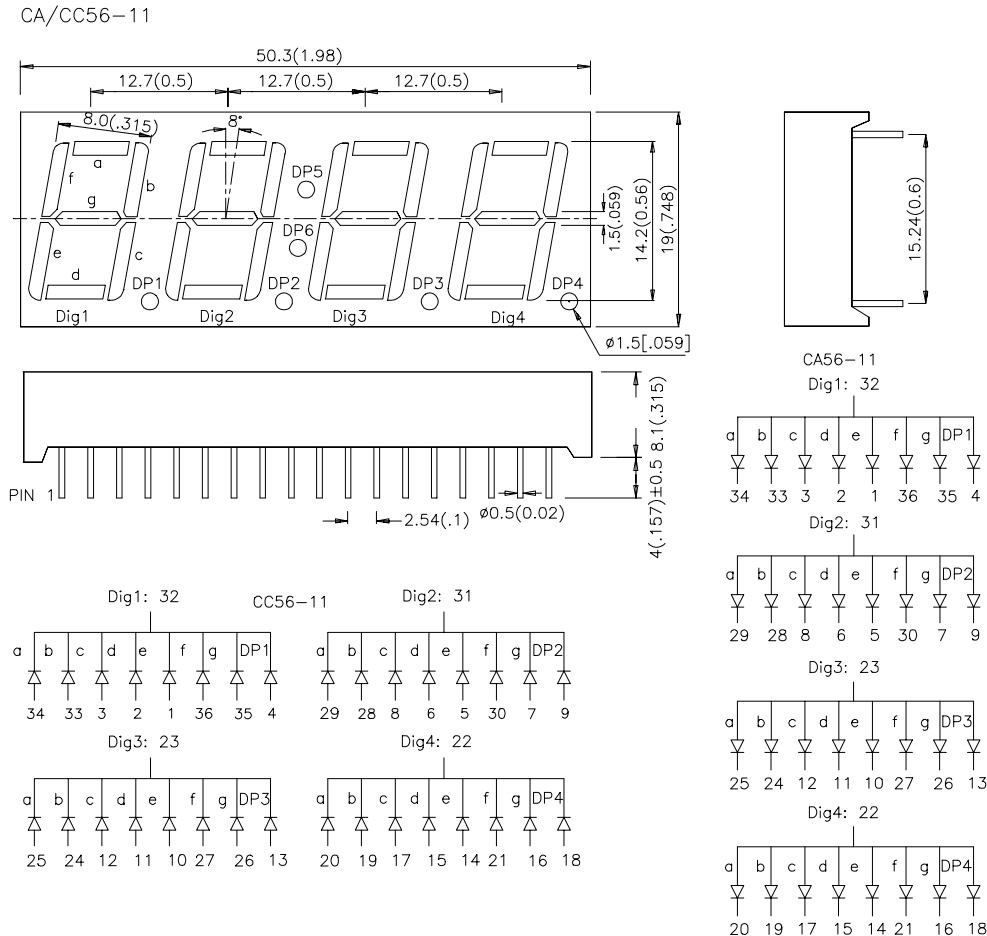
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions & Internal Circuit Diagram

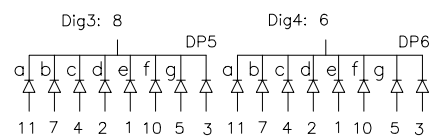
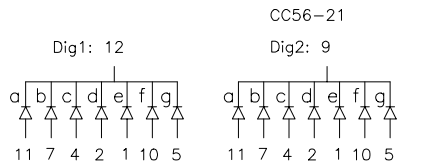
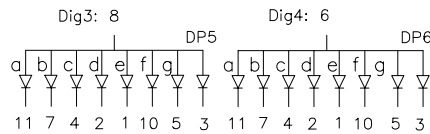
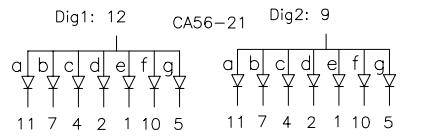
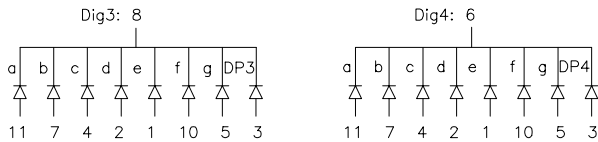
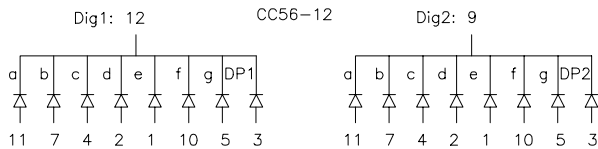
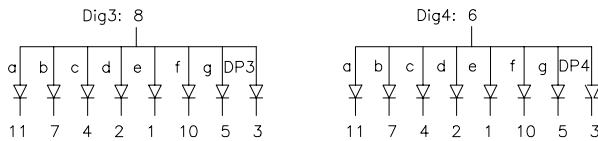
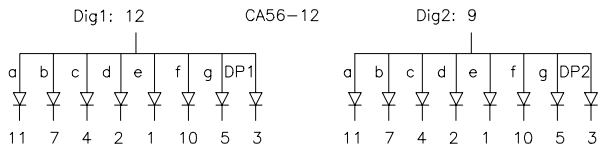
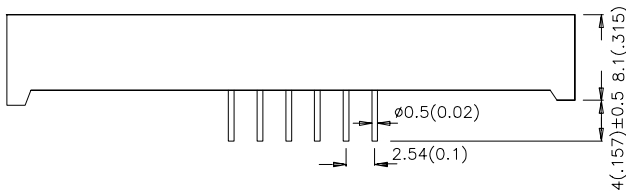
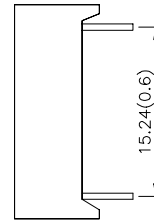
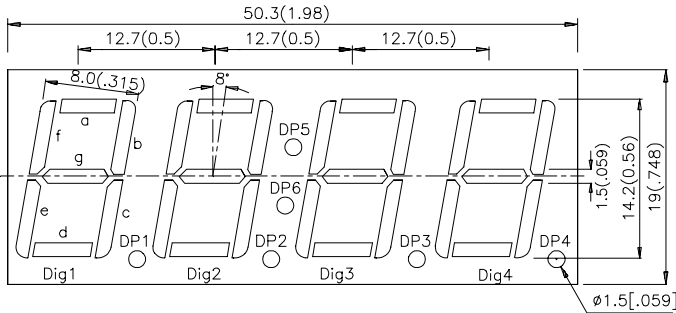


Notes:

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.

## Package Dimensions & Internal Circuit Diagram

CA/CC56-12  
CA/CC56-21



**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	Iv (ucd) @ 10 mA		Description
		Min.	Typ.	
CA56-11EWA CA56-12EWA CA56-21EWA	HIGH EFFICIENCY RED (GaAsP/GaP)	1900	6400	Common Anode, Rt Hand Decimal
CC56-11EWA CC56-12EWA CC56-21EWA				Common Cathode, Rt. Hand Decimal
CA56-11SRWA CA56-12SRWA CA56-21SRWA	SUPER BRIGHT RED (GaAlAs)	8000	24000	Common Anode, Rt Hand Decimal
CC56-11SRWA CC56-12SRWA CC56-21SRWA				Common Cathode, Rt. Hand Decimal
CA56-11YWA CA56-12YWA CA56-21YWA	YELLOW (GaAsP/GaP)	1900	4700	Common Anode, Rt Hand Decimal
CC56-11YWA CC56-12YWA CC56-21YWA				Common Cathode, Rt. Hand Decimal
CA56-11GWA CA56-12GWA CA56-21GWA	GREEN (GaP)	3000	10500	Common Anode, Rt Hand Decimal
CC56-11GWA CC56-12GWA CC56-21GWA				Common Cathode, Rt. Hand Decimal

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

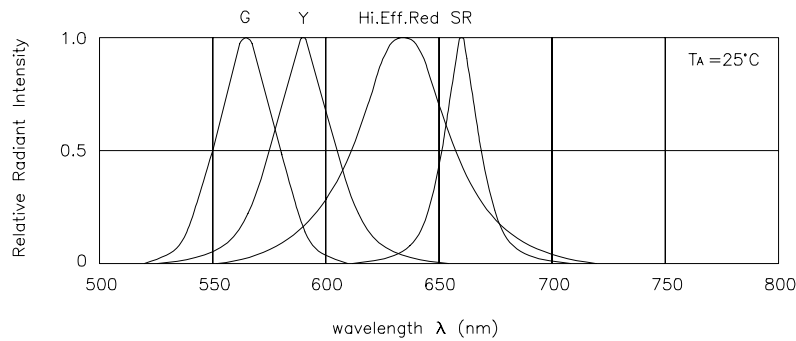
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	I <sub>F</sub> =20mA
$\lambda_D$	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green	45 20 35 30		nm	I <sub>F</sub> =20mA
C	Capacitance	High Efficiency Red Super Bright Red Yellow Green	15 45 20 15		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub>	Forward Voltage	High Efficiency Red Super Bright Red Yellow Green	2.0 1.85 2.1 2.2	2.5 2.5 2.5 2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	All		10	uA	V <sub>R</sub> = 5V

## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

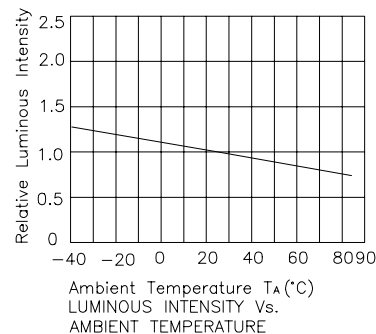
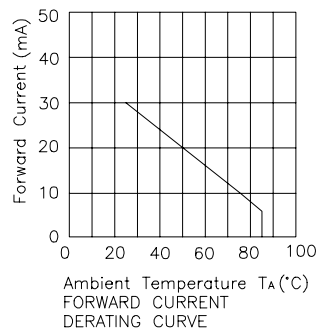
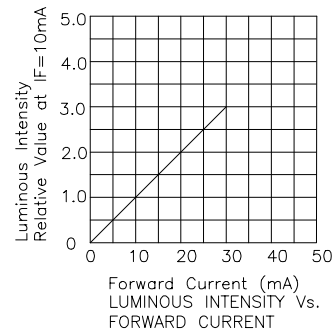
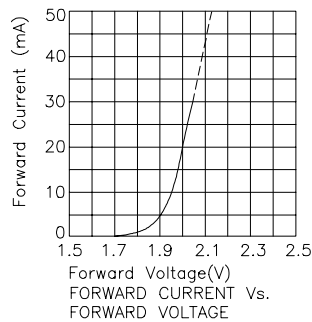
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units
Power dissipation	105	100	105	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	160	155	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

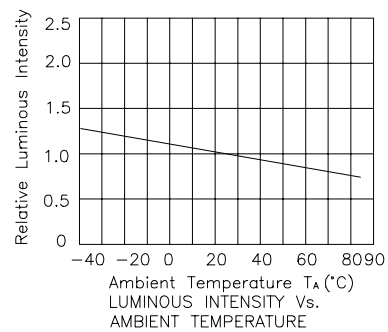
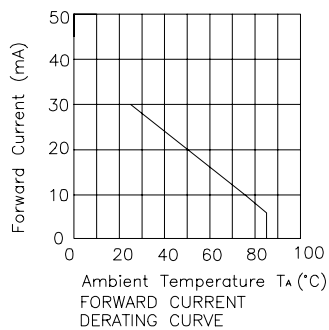
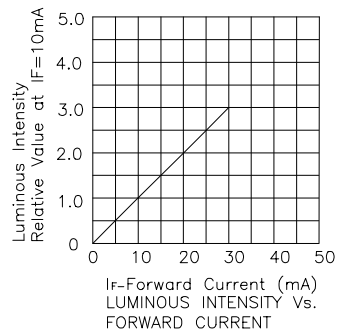
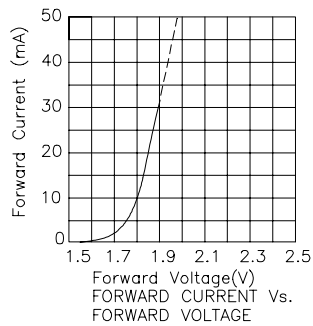
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



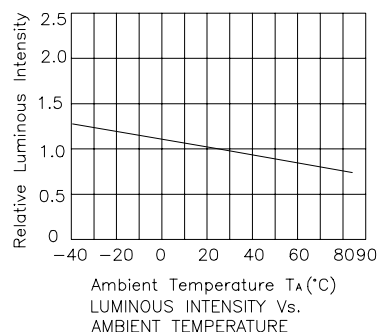
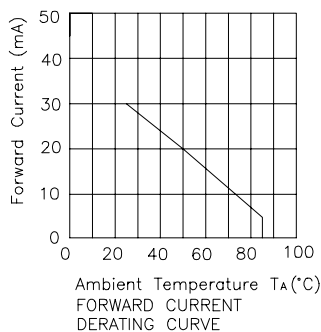
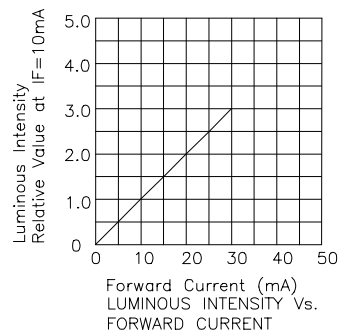
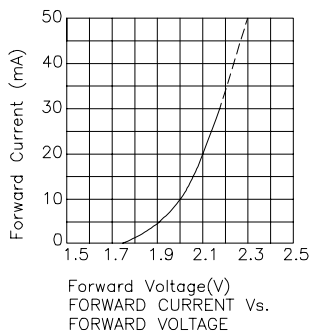
## High Efficiency Red



## Super Bright Red



## Yellow



## Green

