Kingbright

9.9mm (0.39INCH) SINGLE DIGIT NUMERIC DISPLAYS

SA39-11EWA/GWA/YWA/SRWA

SC39-11EWA/GWA/YWA/SRWA

SA39-12EWA/GWA/YWA/SRWA

SC39-12EWA/GWA/YWA/SRWA

Features

- ●0.39 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

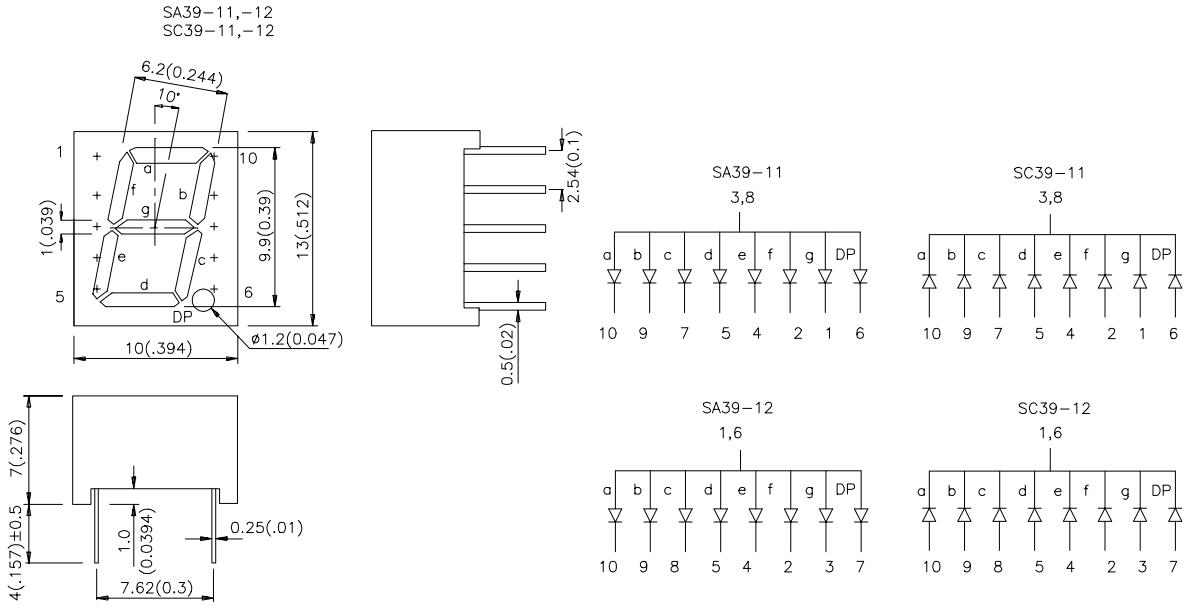
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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

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

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red 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 whitout notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) @ 10 mA		Description
			Min.	Typ.	
SA39-11EWA SA39-12EWA	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	1200	4100	Common Anode.Rt. Hand Decimal
SC39-11EWA SC39-12EWA					Common Cathode.Rt. Hand Decimal
SA39-11GWA SA39-12GWA	GREEN (GaP)	WHITE DIFFUSED	1900	6400	Common Anode.Rt. Hand Decimal
SC39-11GWA SC39-12GWA					Common Cathode.Rt. Hand Decimal
SA39-11YWA SA39-12YWA	YELLOW (GaAsP/GaP)	WHITE DIFFUSED	1200	3000	Common Anode.Rt. Hand Decimal
SC39-11YWA SC39-12YWA					Common Cathode.Rt. Hand Decimal
SA39-11SRWA SA39-12SRWA	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	4700	16000	Common Anode.Rt. Hand Decimal
SC39-11SRWA SC39-12SRWA					Common Cathode.Rt. Hand Decimal

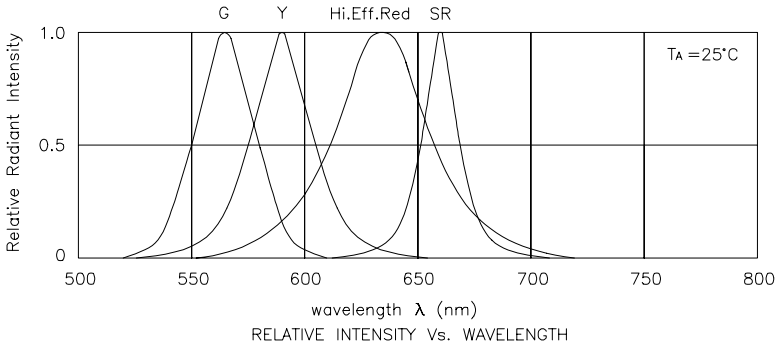
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 565 590 660		nm	I_F=20mA
λD	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 568 588 640		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red Green Yellow Super Bright Red	45 30 35 20		nm	I_F=20mA
C	Capacitance	High Efficiency Red Green Yellow Super Bright Red	15 15 20 45		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	High Efficiency Red Green Yellow Super Bright Red	2.0 2.2 2.1 1.85	2.5 2.5 2.5 2.5	V	I_F=20mA
I_R	Reverse Current	All		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

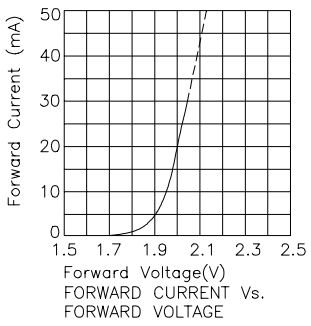
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	105	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	160	140	140	155	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

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

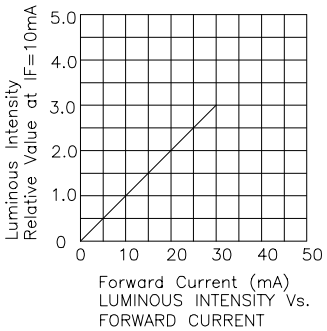


RELATIVE INTENSITY Vs. WAVELENGTH

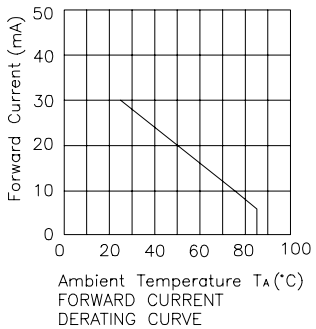
High Efficiency Red



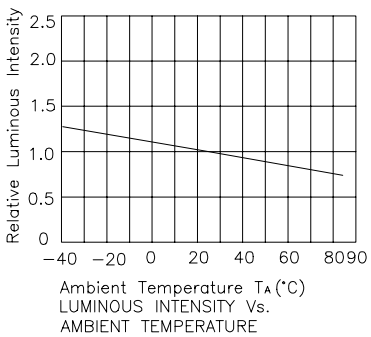
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

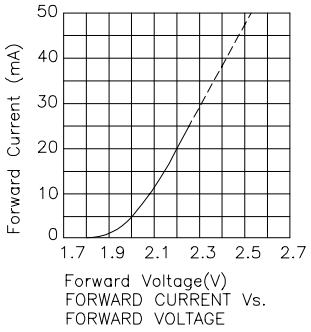


FORWARD CURRENT
DERATING CURVE

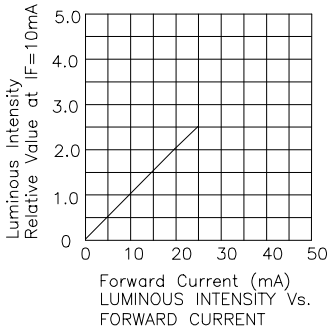


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

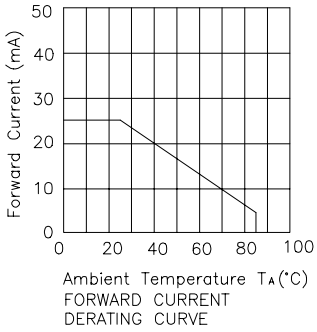
Green



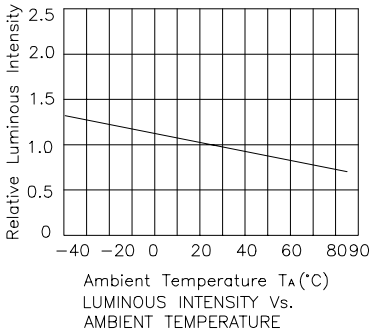
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

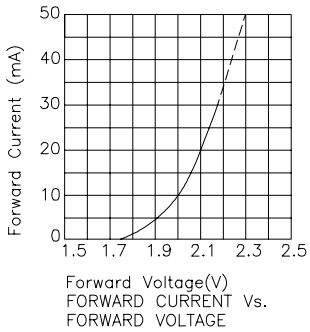


FORWARD CURRENT
DERATING CURVE

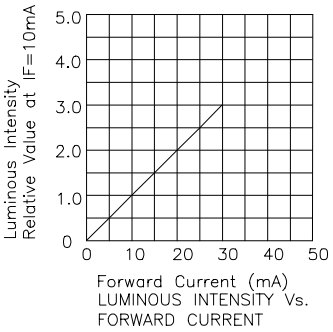


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

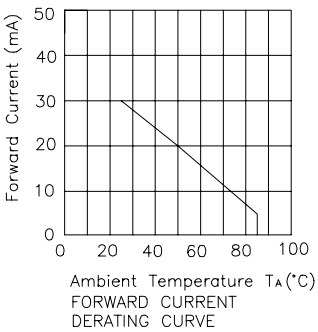
Yellow



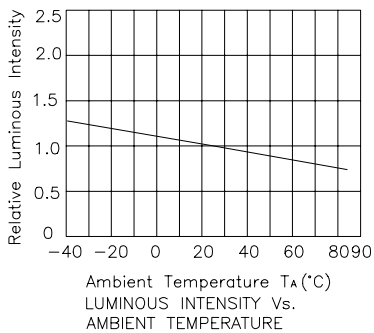
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

Super Bright Red