

SA40-18EWA/SRWA/YWA/GWA
 SC40-18EWA/SRWA/YWA/GWA
 SA40-19EWA/SRWA/YWA/GWA
 SC40-19EWA/SRWA/YWA/GWA

Features

- LARGE SIZE.
- 4.0 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- HIGHLIGHT OUTPUT.
- 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

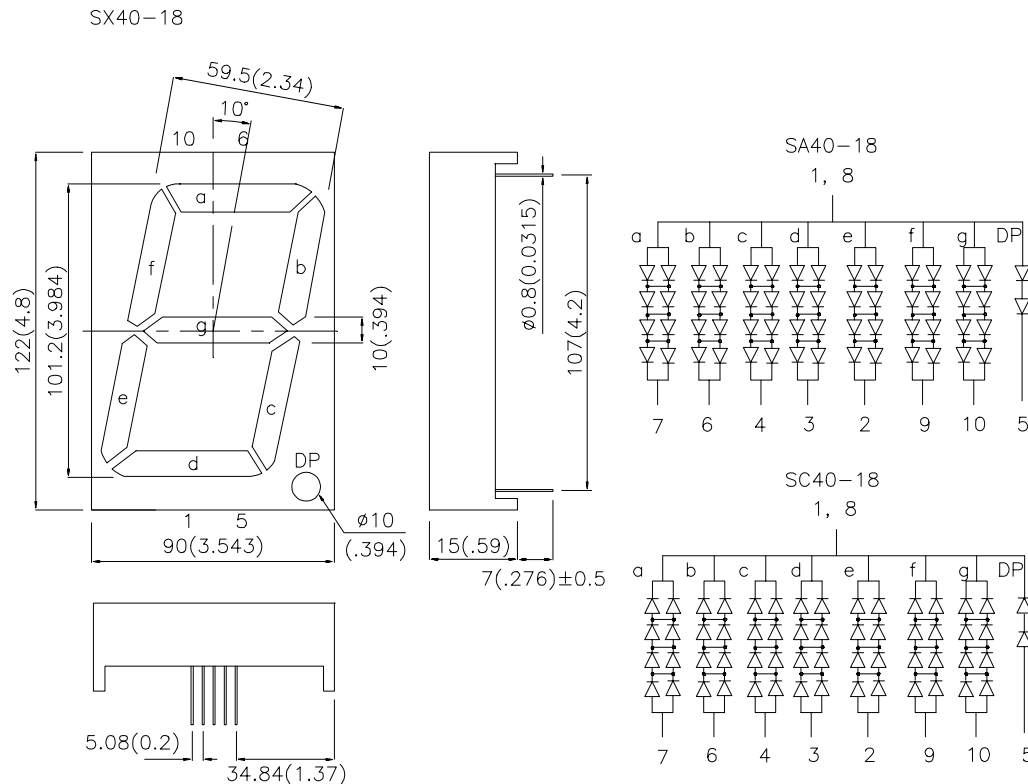
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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 GreenLight Emitting Diode.

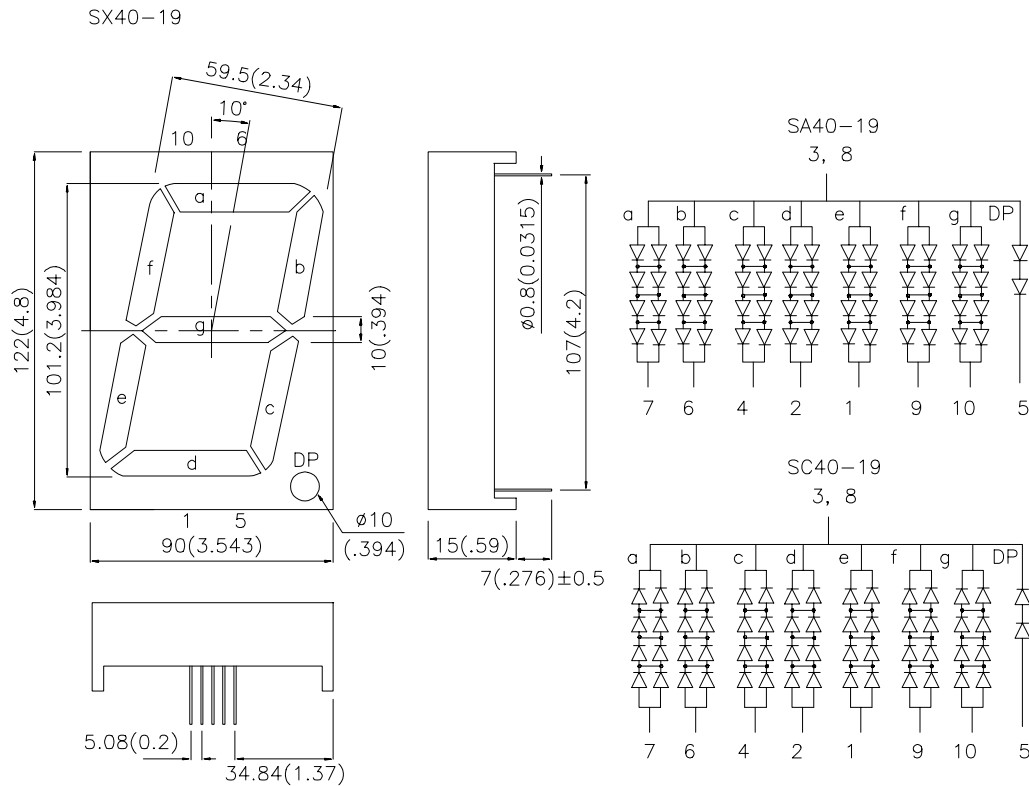
Package Dimensions & Internal Circuit Diagram



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



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) @ 10 mA		Description
			Min.	Typ.	
SA40-18EWA SA40-19EWA	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	18000	44000	Common Anode, Rt. Hand Decimal
SC40-18EWA SC40-19EWA					Common Cathode, Rt. Hand Decimal
SA40-18SRWA SA40-19SRWA	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	26000	105000	Common Anode, Rt. Hand Decimal
SC40-18SRWA SC40-19SRWA					Common Cathode, Rt. Hand Decimal
SA40-18YWA SA40-19YWA	YELLOW (GaAsP/GaP)	WHITE DIFFUSED	12000	26000	Common Anode, Rt. Hand Decimal
SC40-18YWA SC40-19YWA					Common Cathode, Rt. Hand Decimal
SA40-18GWA SA40-19GWA	GREEN (GaP)	WHITE DIFFUSED	18000	60000	Common Anode, Rt. Hand Decimal
SC40-18GWA SC40-19GWA					Common Cathode, Rt. Hand Decimal

Electrical / Optical Characteristics at T_A=25°C

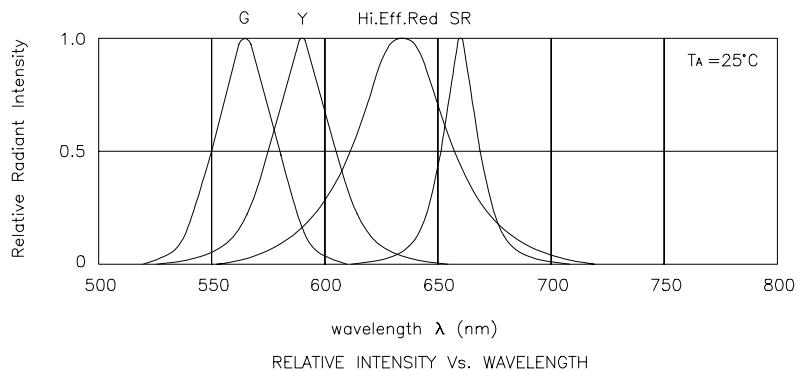
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	I _F =20mA
λ_D	Dominant Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green	45 20 35 30		nm	I _F =20mA
C	Capacitance	High Efficiency Red Super Bright Red Yellow Green	15 45 20 15		pF	V _F =0V;f=1MHz
V _F	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 _F =20mA
I _R	Reverse Current	All		10	uA	V _R = 5V

Absolute Maximum Ratings at T_A=25°C

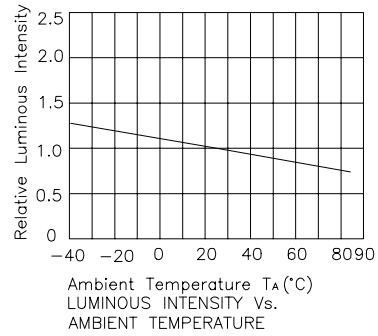
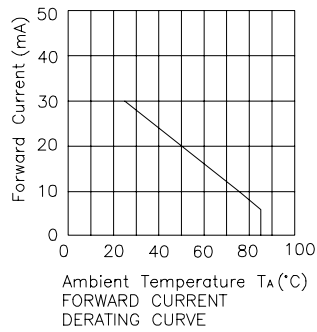
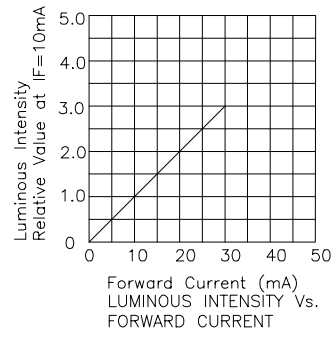
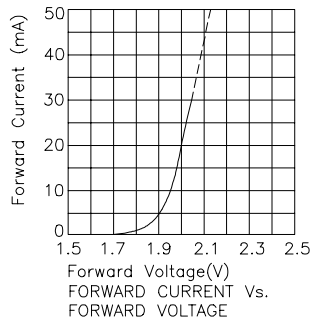
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units
Power dissipation	105	100	105	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	160	155	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

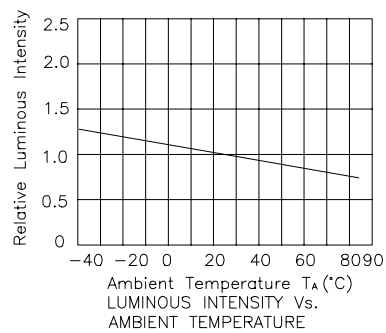
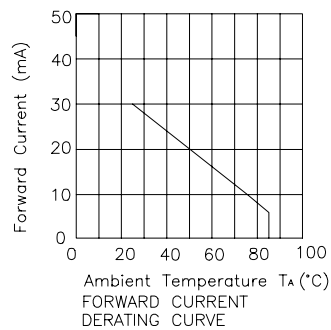
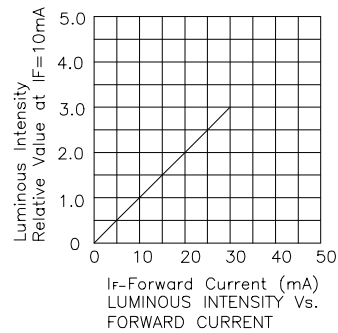
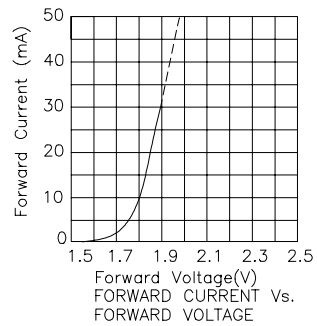
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



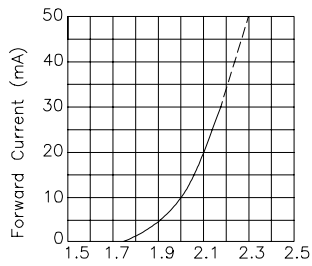
High Efficiency Red



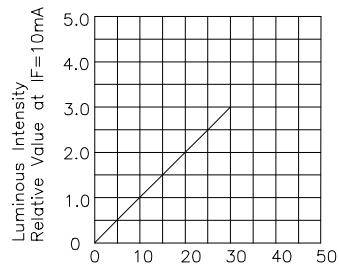
Super Bright Red



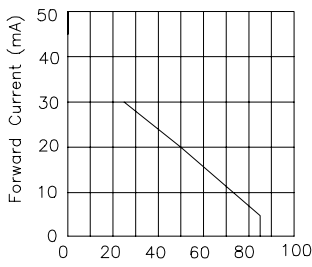
Yellow



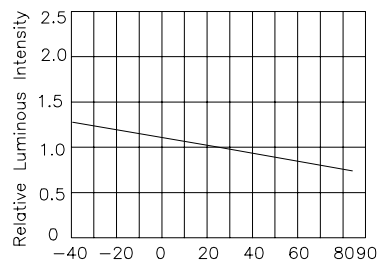
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

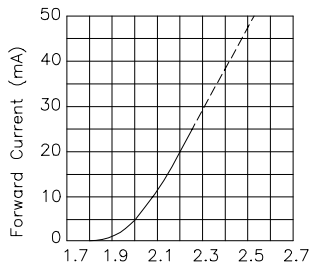


Ambient Temperature TA(°C)
FORWARD CURRENT
DERATING CURVE

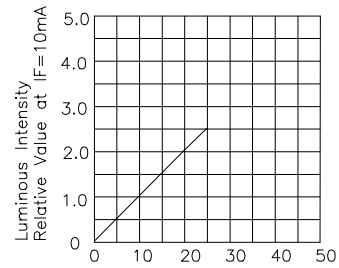


Ambient Temperature TA(°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

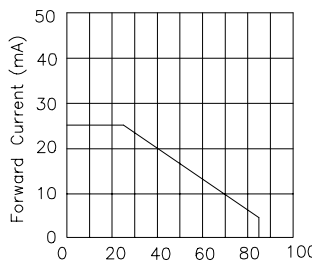
Green



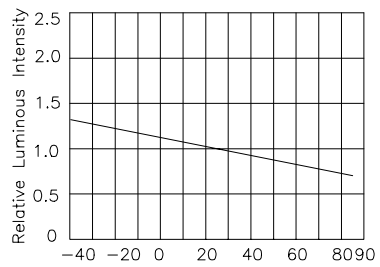
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature TA(°C)
FORWARD CURRENT
DERATING CURVE



Ambient Temperature TA(°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE