



American Opto Plus LED Corp.
0.8" SMD Type LED Display
SMA803LB G/W
SMC803LB G/W

● **FEATURES**

- 0.8 inch (20.32 mm) Digit Height.
- SMD type.
- Low current operation.
- Gray face, White segment.
- RoHS compliant, Pb Free.

● **DESCRIPTION**

The SMA803LB G/W & SMC803LB G/W are 0.8 inch (20.32mm) height Triple 7-segment displays.

This device utilizes Super Bright Blue LED chip which are made from InGaN on a transparent GaN, substrate.

The display has Gray face, White segment.

● **DEVICE**

PART NO	DESCRIPTION
SMA803LB G/W	Common Anode
SMC803LB G/W	Common Cathode

RoHS Compliance



Pb free.





Dimension in millimeters (inches),
And tolerance are $\pm 0.25\text{mm}$ (.01") specified.



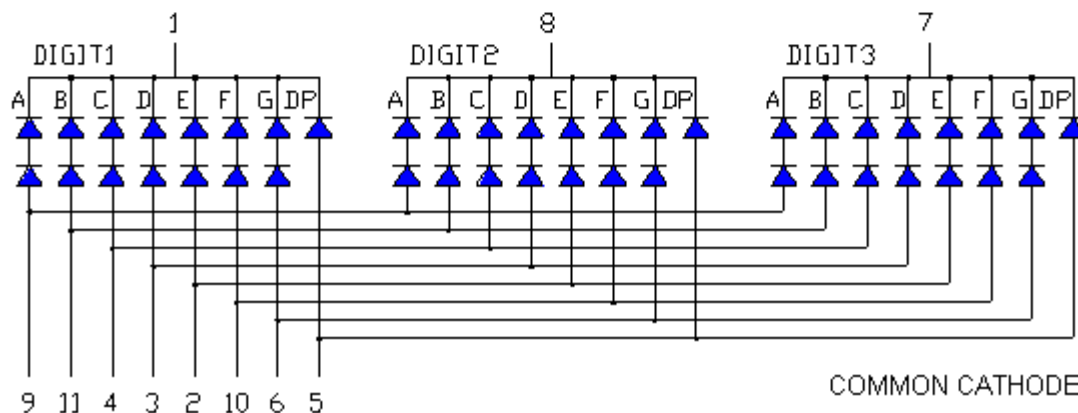
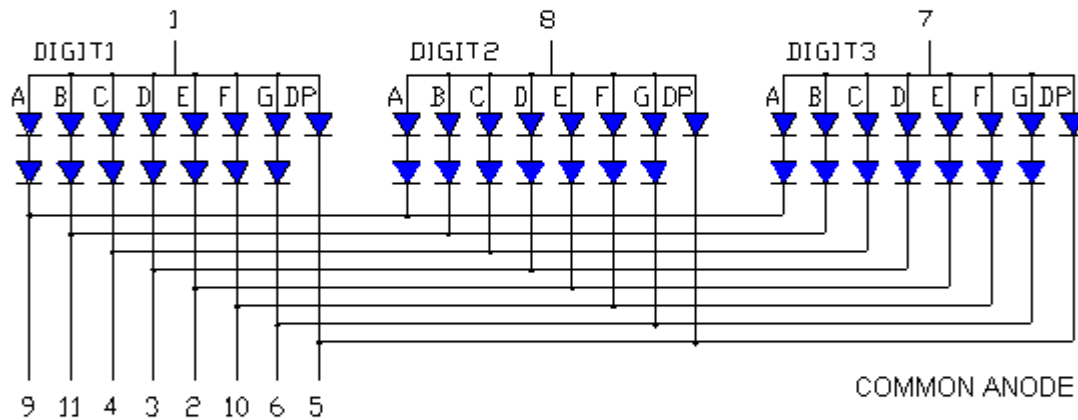
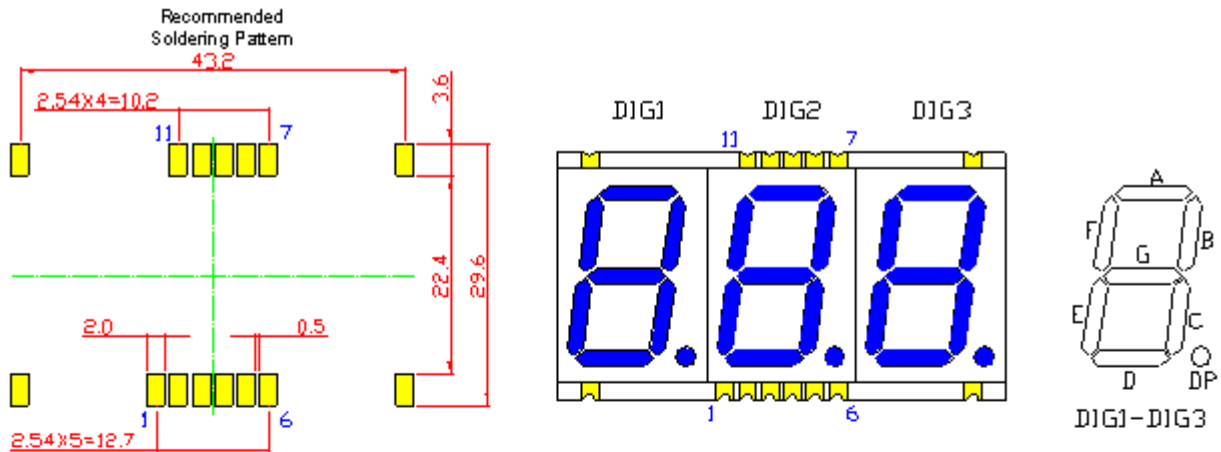
American Opto Plus LED Corp.

0.8" SMD Type LED Display

SMA803LB G/W

SMC803LB G/W

● TYPICAL INTERNAL EQUIVALENT CIRCUIT





American Opto Plus LED Corp.
0.8" SMD Type LED Display
SMA803LB G/W
SMC803LB G/W

● **LB: SUPER BRIGHT BLUE (InGaN/GaN)**

ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Power dissipation	P _{AD}	120	mW
Derating liner from 25°C	-	0.3	mA / °C
Continuous forward current	I _{AF}	30	mA
Peak current (duty cycle 1/10, 1kHz)	I _{PF}	100	mA
Reverse voltage	V _R	5	V
Operating temperature	T _{OPR}	-40 to +105	°C
Storage temperature	T _{STG}	-40 to +105	°C

ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Type.	Max.	Unit
Forward Voltage, (Per Dice)	V _F	I _F =20mA	-	3.2	4.0	V
Reverse Current, (Per Dice)	I _R	V _R =8V	-	-	10	μA
Dominant Wavelength	λ _D	I _F =20mA	-	470	-	nm
Luminous Intensity	I _V	I _F =20mA	-	50	-	mcd
Spectral radiation bandwidth	Δλ	I _F =20mA	-	30	-	nm

● **LB: SUPER BRIGHT BLUE (InGaN/GaN) CURVE**



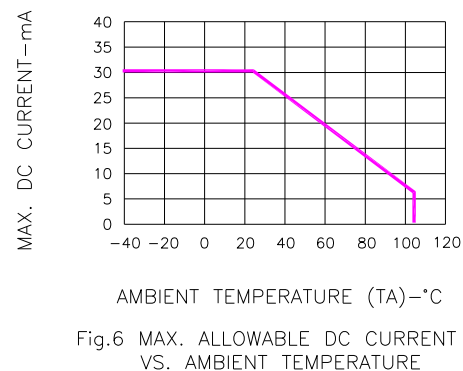
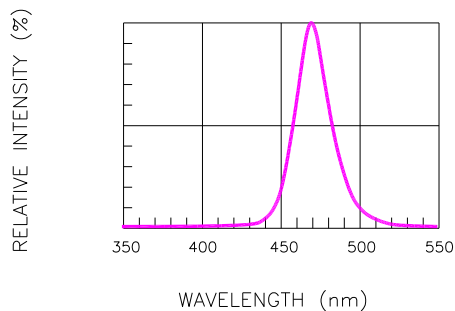
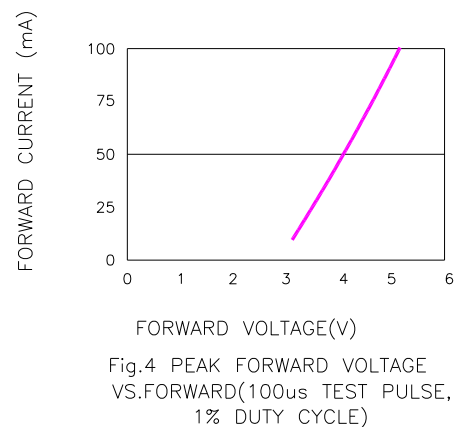
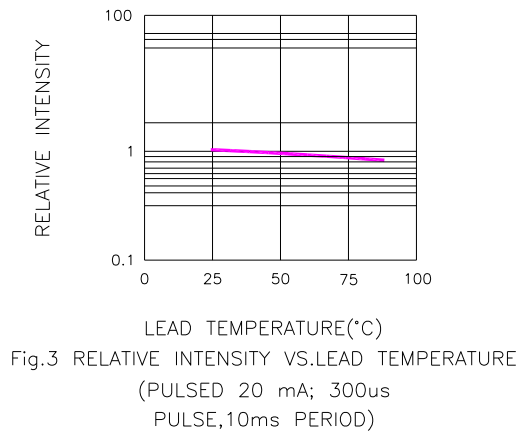
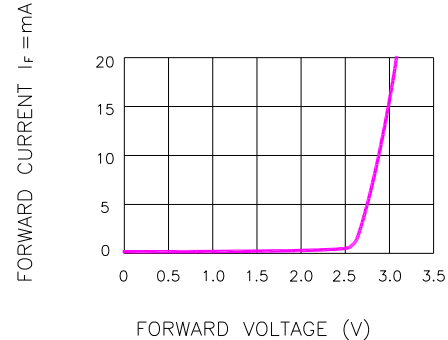
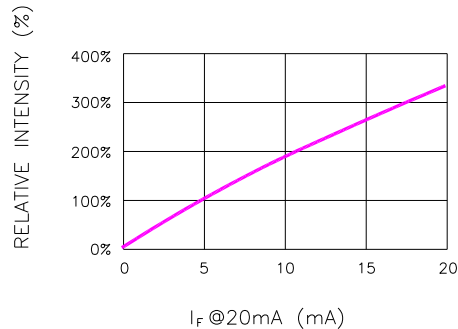
American Opto Plus LED Corp.

0.8" SMD Type LED Display

SMA803LB G/W

SMC803LB G/W

Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)



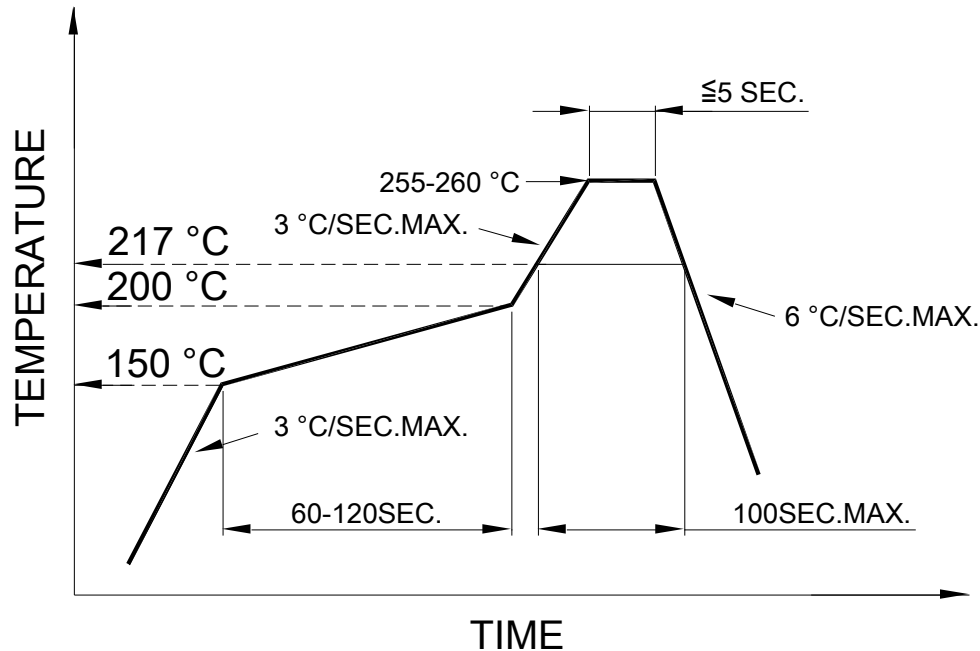
● RECOMMEND SOLDERING PROFILE



American Opto Plus LED Corp.
0.8" SMD Type LED Display
SMA803LB G/W
SMC803LB G/W

SMT Soldering Profile

Pb free reflow soldering Profile



● SOLDERING IRON

Basic specification : ≤ 4 seconds when 260°C, If temperature is higher, time should be shorter (+10°C→1 sec). Power dissipation of iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

● REWORK

Customer must finish rework within ≤ 3 sec under 350°C.