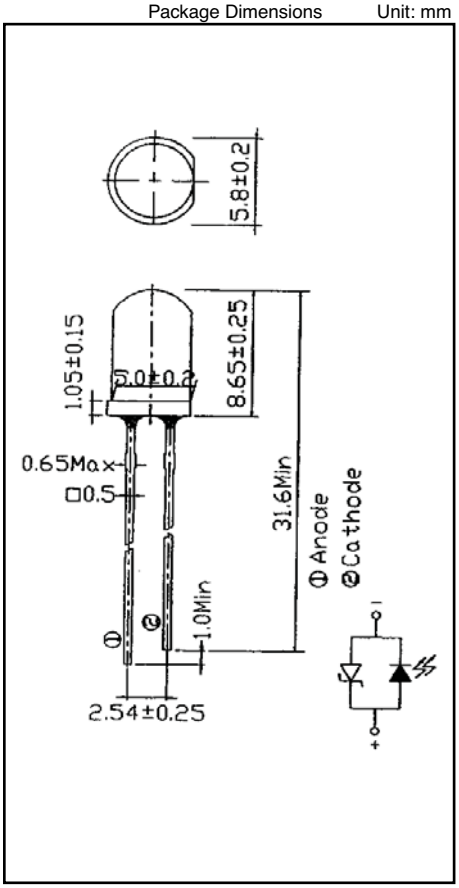
Package Dimensions Unit: mm



AND156SYP

AS AlGaInP Super Yellow Light Emission

T-1 3/4 Package (5 mm)

Features

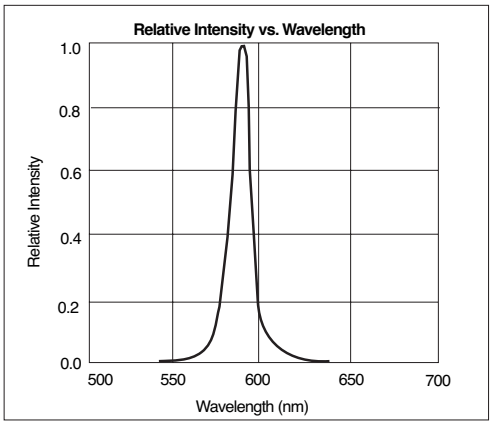
- High efficiency
- Absorbing substrate aluminum gallium phosphide
- Viewing Angle: 30 degrees
- All plastic mold type, clear colorless lens
- Low power consumption
- ESD-withstand voltage: up to 2kV
- Pb free
- **Applications:** Outdoor Displays, Status Indicators, Backlighting, and Commercial Use

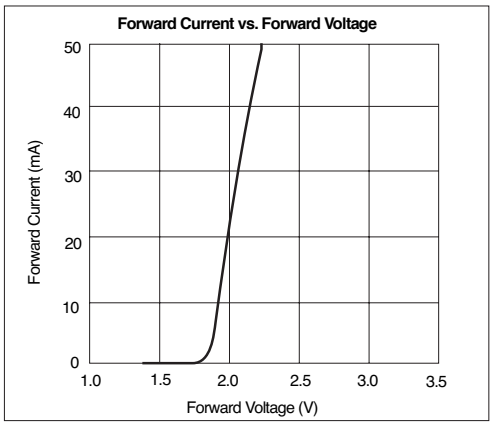
Maximum Ratings (T_a = 25°C)

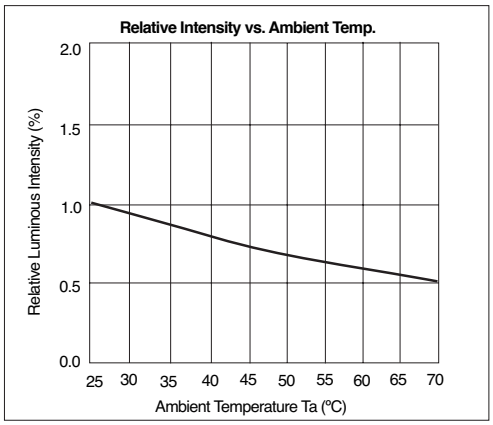
Characteristics	Symbol	Rating	Unit
Continuous Forward Current	I_F	50	mA
Peak Forward Current (Pulse Width < 100μs, Duty Cycle <1%)	IFP	100	mA
Operating Temperature	T_{Opr}	-40 ~ + 85	°C
Storage Temperature	T_{Stg}	-40 ~ +100	°C
Soldering Temperature (Time < 5 seconds)	T_{Sol}	260	°C
Power Dissipation	P_D	115	mW
Zener Reverse Current	I_Z	100	mA
Electrostatic Discharge	ESD	4000	V

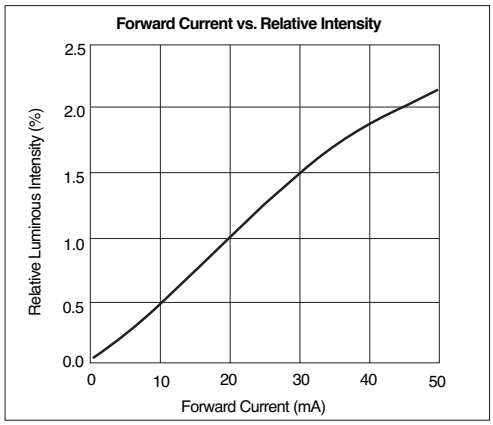
Electro-Optical Characteristics (T_a = 25°C)

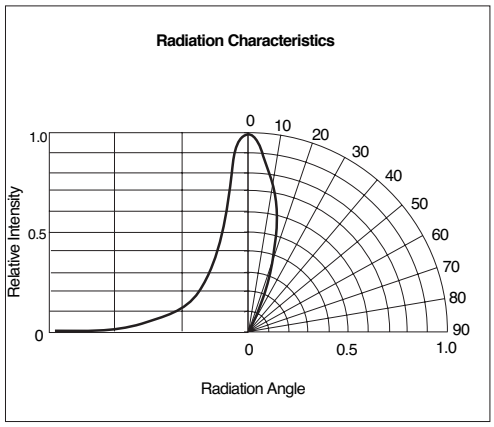
Characteristics	Symbol	Test Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F = 20 mA	–	2.0	2.6	V
Zener Reverse Voltage	V_Z	I_Z = 5 mA	–	–	3.0	V
Luminous Intensity	I_V	I_F = 20 mA	4500	6200	7150	mcd
Peak Emission Wavelength	λ_P	I_F = 20 mA	–	591	–	nm
Dominant Wavelength	λd	I_F = 20 mA	–	589	–	nm
Spectrum Radiation Bandwidth	Δλ	I_F = 20 mA	–	15	–	nm
Full Viewing Angle	2 θ 1/2	I_F = 20 mA	–	30	–	degree

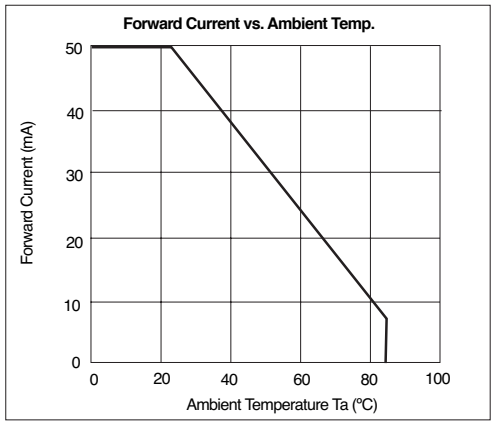


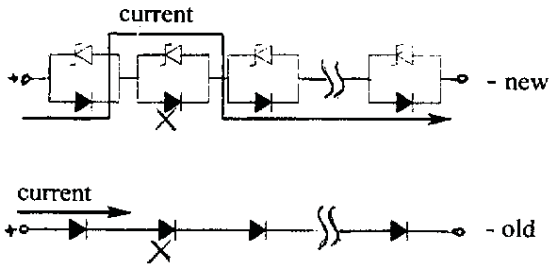












When the LEDs are connected using serial circuit, if either one of the LEDs does not light up, then current will not flow causing the other LEDs to not light up. In the new design, the LEDs are in parallel with the zener diodes. If either one of the LEDs does not light up, current can still flow through causing the others to light up.