

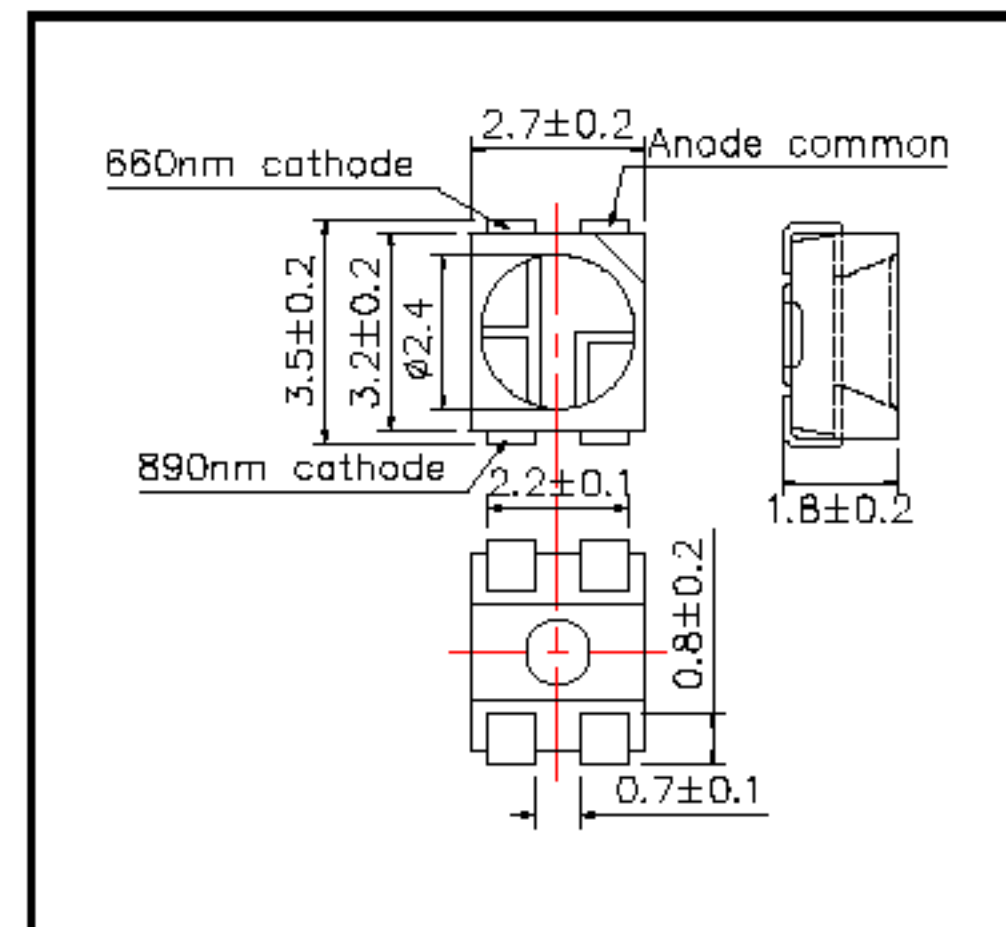
# SMT660/890 High Performance Bi-color TOP LED

Bi-color LED of SMT660/890 consists of AlGaAs LEDs mounted on the lead frame as TOP LED package and is sealed with epoxy resin. It emits a spectral band of radiation at 650nm and 890nm at anode common.

### ◆ Specifications

1) Product Name	Bi-color TOP LED
2) Type No.	SMT660/890
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	650nm/890nm
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	Epoxy Resin

◆ Outer dimension (Unit:mm)



### ◆ Absolute Maximum Rating

Item	Symbol	Maximum Rated Value		Unit	Ambient Temperature
		660nm	890nm		
Power Dissipation	P <sub>D</sub>	75	150	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	30	100	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5		V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-20 ~ +80		°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +80		°C	
Soldering Temperature	T <sub>SOL</sub>	240		°C	

‡Soldering condition: Soldering condition must be completed within 3 seconds at 230°C

### ◆ Electro-Optical Characteristics [T<sub>a</sub>=25°C]

Item	Symbol	Condition	Minimum		Typical		Maximum		Unit
			660nm	890nm	660nm	890nm	660nm	890nm	
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA			1.90	1.30	2.20	1.50	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V					10		uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA	1.5	2.0	2.5	3.5			mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =20mA			1.5	3.0			mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	640	875	650	890	660	905	nm
Half Width	Δλ	I <sub>F</sub> =20mA			20	75			nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =20mA			±55				deg.

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.