

## SMT735/850

### High Performance Bi-Color TOP LED

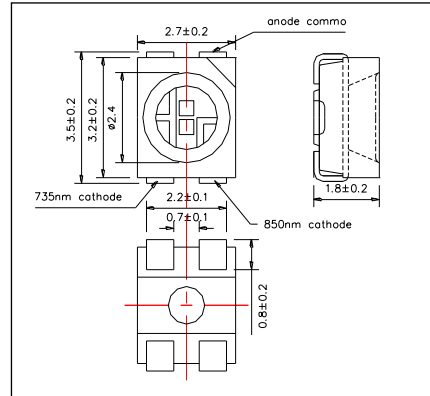
SMT735/850 consists of DDH AlGaAs LEDs mounted on the lead frame as TOP LED package and is sealed with epoxy resin.

It emits a spectral band of radiation at 735 and 850nm at anode common.

<Specifications>

1. Product Name: Bi-Color TOP LED
2. Type Number: SMT735/850
3. Chip:
  - Chip Material: AlGaAs
  - Peak Wavelength: 735,850nm
4. Package
  - Lead Frame Die: Silver Plated
  - Package Resin: PPA Resin
  - Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings [Ta=25°C]				
Item	Symbol	Maximum Rated Value		Unit
		735nm	850nm	
Power Dissipation	PD	110	80	mW
Forward Current	IF	50	50	mA
Pulse Forward Current*	IFP	200	500	mA
Reverse Voltage	VR	5		V
Junction Temperature	Tj	100		°C
Thermal Resistance	Rthja	190		K/W
Operating Temperature	TOPR	-20 ~ +80		°C
Storage Temperature	TSTG	-30 ~ +80		°C
Soldering Temperature**	TSOL	255		°C

\* Duty=1% and Pulse width=10µs.

\*\* Soldering condition must be completed within 10 second at 255°C.

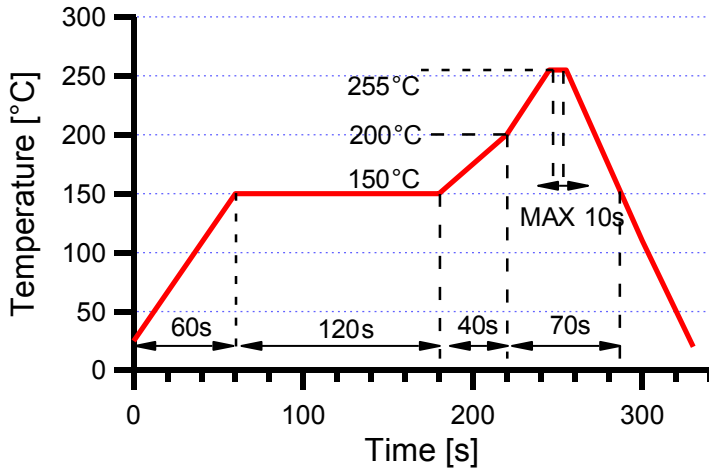
Electro-Optical Characteristics [Ta=25°C ]									
Item	Symbol	Condition	Minimum		Typical		Maximum		Unit
			735	850	735	850	735	850	
Forward Voltage	VF	IF=50mA			1.85	1.60	2.10	1.80	V
Reverse Current	IR	VR=5V					10		uA
Total Radiated Power*	PO	IF=50mA	5	10	10	18			mW
Radiant Intensity	IE	IF=50mA	2	5	5	7			mW/sr
Peak wavelength	λP	IF=50mA	725	840	735	850	745	860	nm
Half Width	Δλ	IF=50mA			20	35			nm
Viewing Half Angle	θ1/2	IF=50mA			±55				deg

\* Measured by Photodyne #500

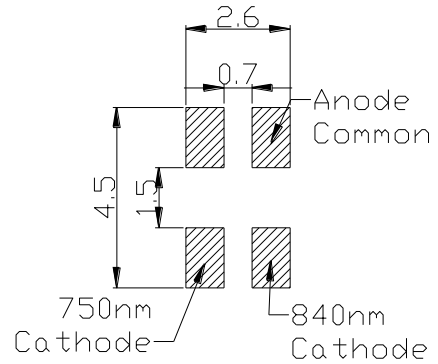


◆ SMD Application

Recommended reflow soldering profile



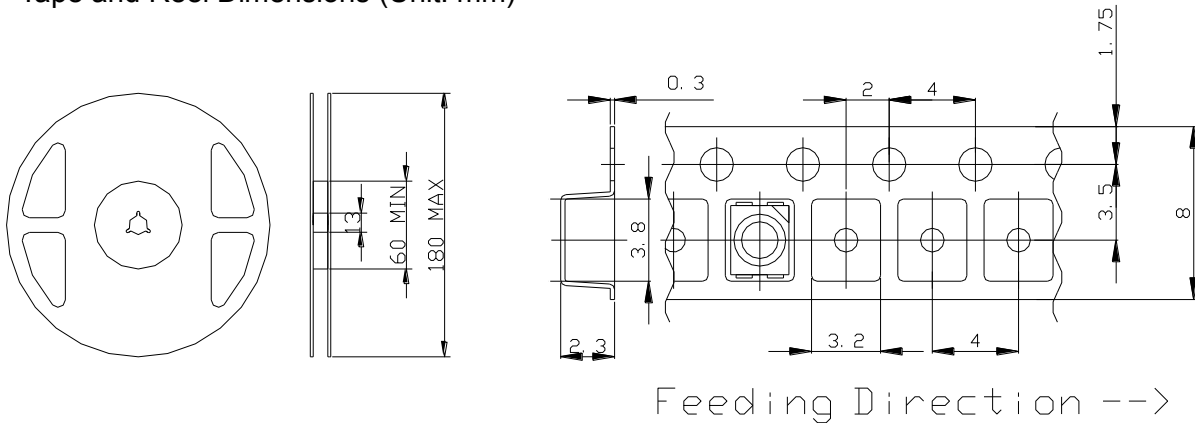
Recommended Land Layout (Unit: mm)



Don't put stress on SMD and a circuit board after soldering.

◆ SMD Packing

Tape and Reel Dimensions (Unit: mm)



◆ Wrapping

Moisture barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.