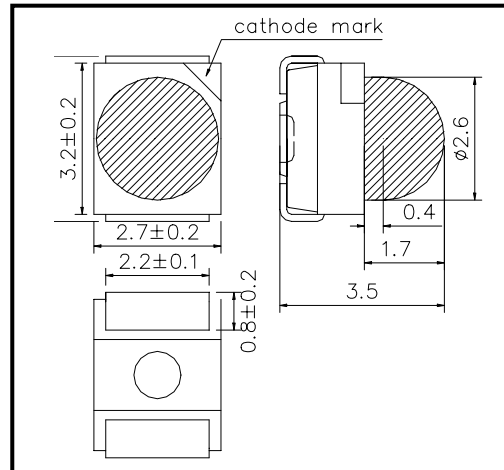


# SMT630W2-23

High Performance Red color TOP LED with Lens

SMT630W2-23 consists of an AlGaInP LED mounted on the lead frame as TOP LED package with plastic ball lens and is 2200mcd typical of Brightness driving at 20mA. It emits a spectral band of radiation at 635nm.

## ◆ Outer dimension (Unit: mm)



## ◆ Specifications

1) Product Name	TOP LED
2) Type No.	SMT630W2-23
3) Chip	
(1) Chip Material	AlGaInP
(2) Peak Wavelength	635nm typ.
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	Epoxy Resin

## ◆ Absolute Maximum Rating

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	$P_D$	120	mW	$T_a=25^\circ\text{C}$
Forward Current	$I_F$	50	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	$V_R$	5	V	$T_a=25^\circ\text{C}$
Operating Temperature	$T_{OPR}$	-20 ~ +80	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +80	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	240	$^\circ\text{C}$	

‡Soldering condition: Soldering condition must be completed within 3 seconds at 240°C

 ◆ Electro-Optical Characteristics [ $T_a=25^\circ\text{C}$ ]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	$V_F$	$I_F=20\text{mA}$		2.1	2.5	V
Reverse Current	$I_R$	$V_R=5\text{V}$			10	$\mu\text{A}$
Total Radiated Power	$P_O$	$I_F=20\text{mA}$	4.0	7.5		mW
Brightness	$I_v$	$I_F=20\text{mA}$		2200		mcd
Radiant Intensity	$I_E$	$I_F=20\text{mA}$		12.0		$\text{mW/sr}$
Peak Wavelength	$\lambda_P$	$I_F=20\text{mA}$	630	635	640	nm
Half Width	$\Delta\lambda$	$I_F=20\text{mA}$		15		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=20\text{mA}$		$\pm 18$		deg.

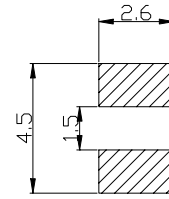
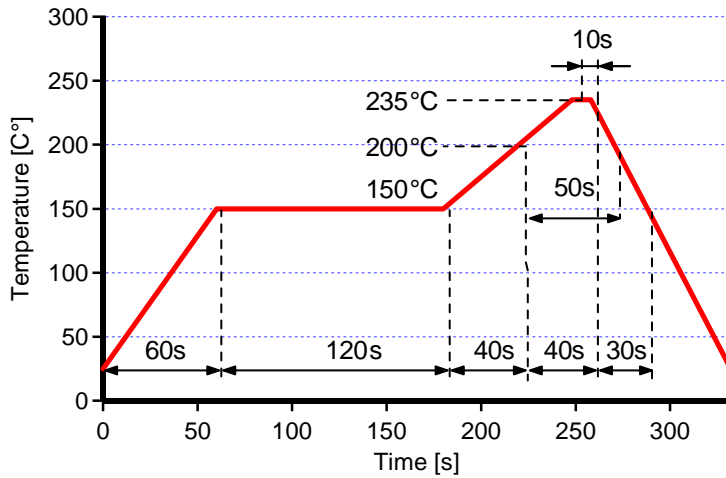
‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

◆ SMD Application

Recommended reflow soldering profile

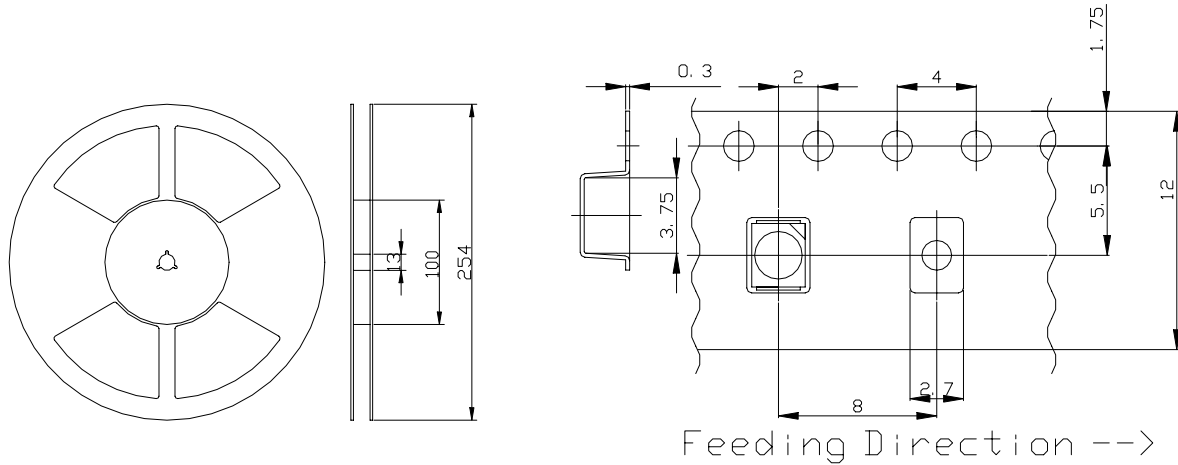
Recommended Land Layout (Unit: mm)



Solder within 4days after opening the aluminum laminated bag and storage the circumstance of less than 30 and 50%RH during 4days.

◆ 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.