

SMTQ625-23

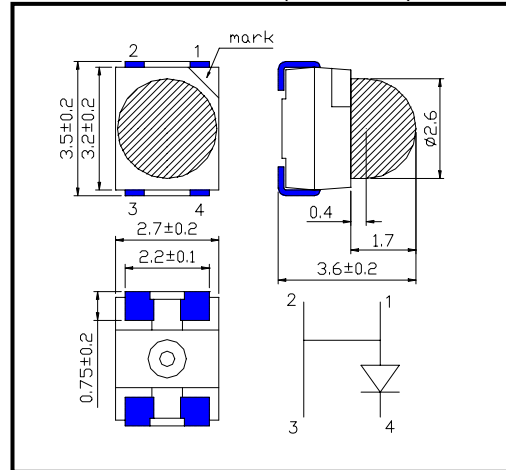
High Performance Red color TOP LED with Lens

SMTQ625-23 consists of an AlGaInP LED mounted on the lead frame as TOP LED package with plastic ball lens and is 8.5cd typical of Brightness driving at 50mA. It emits a spectral band of radiation at 625nm.

◆ Specifications

1) Product Name	TOP LED
2) Type No.	SMTQ625-23
3) Chip	
(1) Chip Material	AlGaInP
(2) Peak Wavelength	625nm typ
4) Package	
(1) Lead Frame	PLCC4
(2) Frame Material	Silver Plated
(3) Package Resin	PPA Resin
(4) Lens	Epoxy Resin
(5) Diameter	Φ2.6mm

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Rating

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	175	mW	$T_a=25^\circ\text{C}$
Forward Current	I_F	75	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}	255	$^\circ\text{C}$	

‡Soldering condition: Soldering condition must be completed within 10 seconds at 255 $^\circ\text{C}$

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F=20\text{mA}$		2.0	2.3	V
		$I_F=50\text{mA}$		2.2	2.5	
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F=20\text{mA}$	4.0	7.5		mW
		$I_F=50\text{mA}$	14.0	18.0		
Brightness	I_V	$I_F=20\text{mA}$		3,500		mcd
		$I_F=50\text{mA}$		8,500		
Radiant Intensity	I_E	$I_F=20\text{mA}$		14		mW/sr
		$I_F=50\text{mA}$		30		
Peak Wavelength	λ_P	$I_F=50\text{mA}$	622	627	632	nm
	λ_D		615	618	620	
Half Width	$\Delta\lambda$	$I_F=20\text{mA}$		18		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=20\text{mA}$		± 18		deg.

‡Total Radiated Power is measured by Photodyne #500

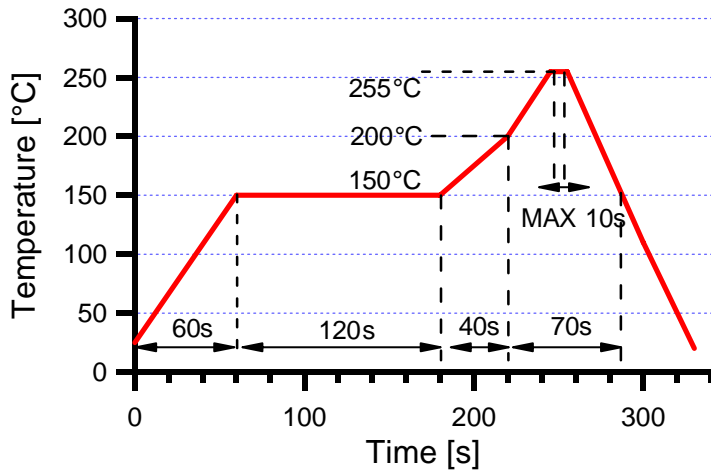
‡Radiant Intensity is measured by Tektronix J-6512.

USHIO EUROPE B.V. (www.ushio.eu)

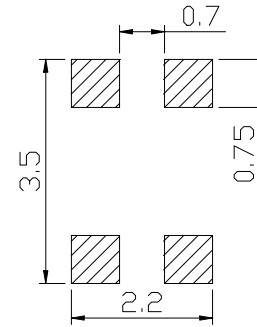
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◆ SMD Application
IR-Reflow Soldering Profile for lead free soldering

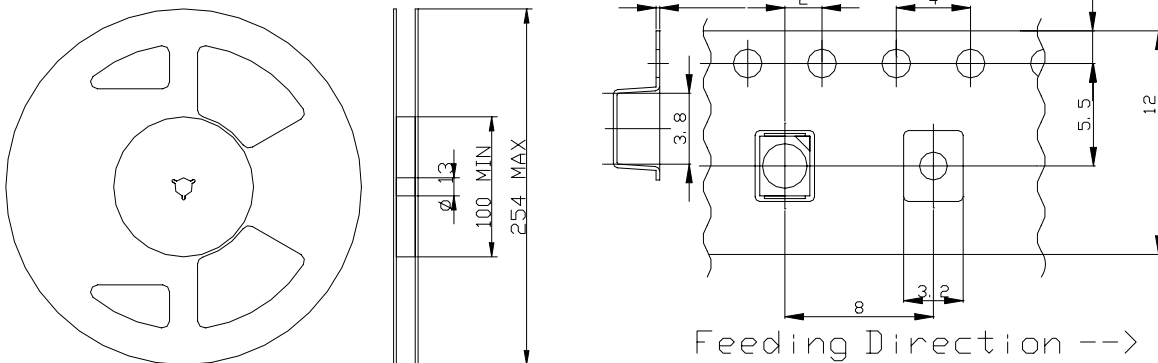


Recommended Land Layout (Unit: mm)



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.