



PART NO. : 67-23SDRSUGSUBC/TR8

Device Number : DSE-673-014 REV. 1.2

TOP LED

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Features :

- P-LCC-4 package.
- White package.
- Optical indicator.
- Colorless clear window.
- Ideal for backlight and light pipe application.
- Inter reflector.
- Low (2mA) current operation.
- Wide viewing angle.
- Computable with automatic placement equipment.
- Suitable for vapor-phase reflow, Infrared reflow and wave solder processes.
- Available on tape and reel (8mm Tape).

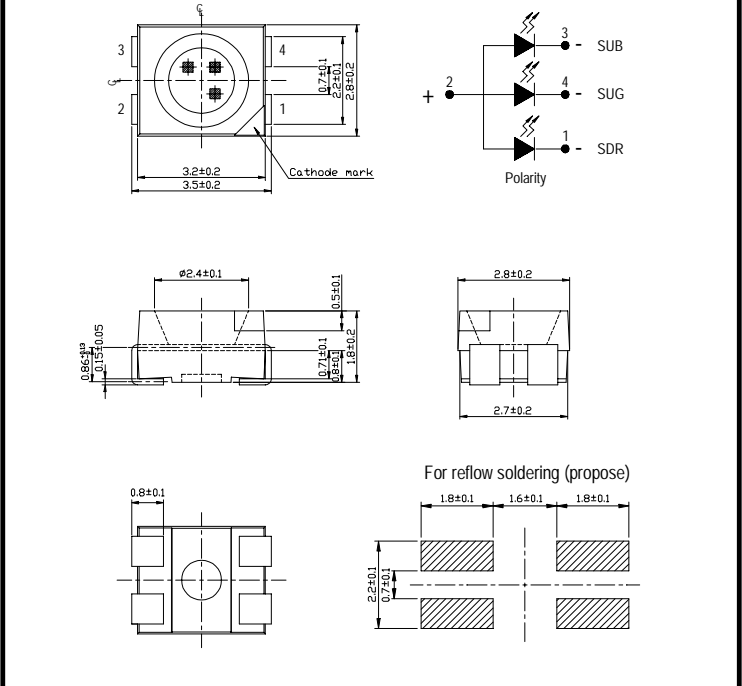
Description :

- The 67-23 series is available in soft-orange, green, blue and yellow, Due to the package design, the LED has wide viewing angle and optimized light coupling by inter reflector, this feature makes the SMT TOP LED ideal for light pipe application, The low current requirement makes this device ideal for portable equipment or any other application where power is at a premium.

Applications :

- Automotive: backlight in dashboards and switches
- Telecommunication: indicator and backlight in telephone and fax.
- Indicator and backlight for audio and video equipment.
- Indicator and backlight in office and family equipment.
- Flat backlight for LCD's, switches and symbols.
- Light pipe application.
- General use.

Package Dimensions :



Notes:

Tolerances Unless Dimension ± 0.1mm
 Angle ±0.5°
 Unit = mm

Part NO.	Chip		Lens Color
	Material	Emitted Color	
67-23SDRSUGSUBC/TR8	AlGaInP	Super Deep-Red	Water Clear
	GaN/SiC	Super Green	
	GaN/SiC	Super Blue	

Office: NO. 25, Lane 76, Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL: 886-2-2267-2000, 2267-9936

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Http: //www.everlight.com



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■ Absolute Maximum Ratings at Ta = 25°C (SDR)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	40	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature	T _{sol}	260 (for 5 second)	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P _d	100	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	180	mA

■ Electronic Optical Characteristics : (SDR)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I _v	-----	4	-----	mcd	I _F =2mA
		40	64	-----	mcd	I _F =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	I _F =20mA
Peak Wavelength	λ _p	-----	650	-----	nm	I _F =20mA
Dominant Wavelength	λ _d	-----	639	-----	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	-----	20	-----	nm	I _F =20mA
Forward Voltage	V _F	-----	2.0	2.4	V	I _F =20mA
Reverse Current	I _R	-----	-----	10	μA	V _R =5V



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■ **Absolute Maximum Ratings at Ta = 25°C (SUG)**

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	30	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature	T _{sol}	260 (for 5 second)	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	P _d	120	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	100	mA

■ **Electronic Optical Characteristics (SUG)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I _v	-----	30	-----	mcd	I _F =2mA
		160	296	-----	mcd	I _F =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	I _F =20mA
Peak Wavelength	λ _p	-----	518	-----	nm	I _F =20mA
Dominant Wavelength	λ _d	-----	525	-----	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	-----	30	-----	nm	I _F =20mA
Forward Voltage	V _F	-----	3.5	4.3	V	I _F =20mA
Reverse Current	I _R	-----	-----	10	μA	V _R =5V



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■ Absolute Maximum Ratings at Ta = 25°C (SUB)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	30	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature	T _{sol}	260 (for 5 second)	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	P _d	120	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	100	mA

■ Electronic Optical Characteristics (SUB)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I _v	-----	6	-----	mcd	I _F =2mA
		40	60	-----	mcd	I _F =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	I _F =20mA
Peak Wavelength	λ _p	-----	468	-----	nm	I _F =20mA
Dominant Wavelength	λ _d	-----	470	-----	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	-----	26	-----	nm	I _F =20mA
Forward Voltage	V _F	-----	3.5	4.3	V	I _F =20mA
Reverse Current	I _R	-----	-----	10	μA	V _R =5V

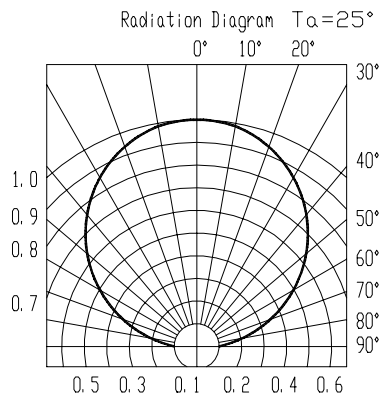
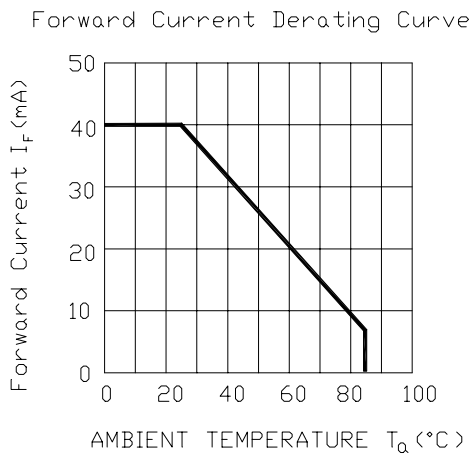
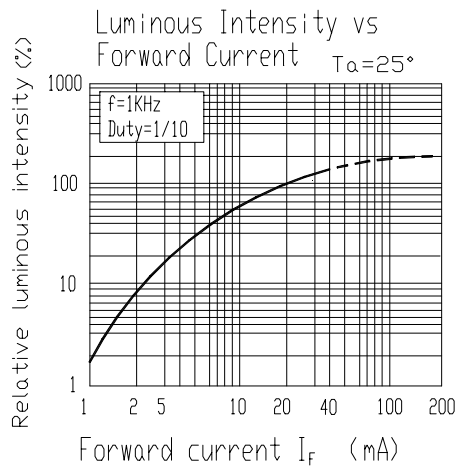
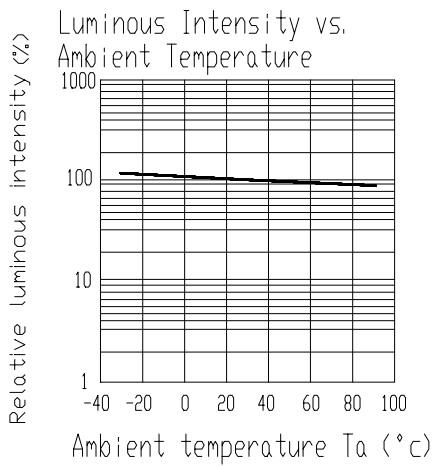
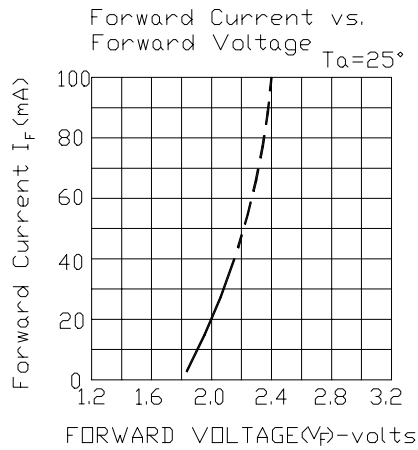
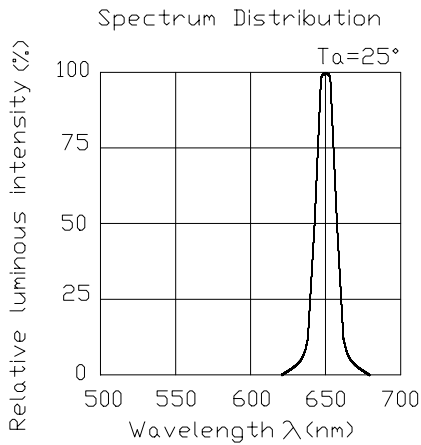


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Typical Electro-Optical Characteristic Curves(SDR)



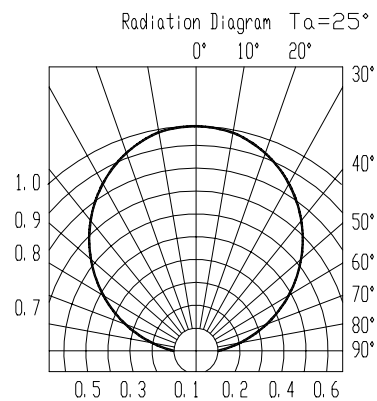
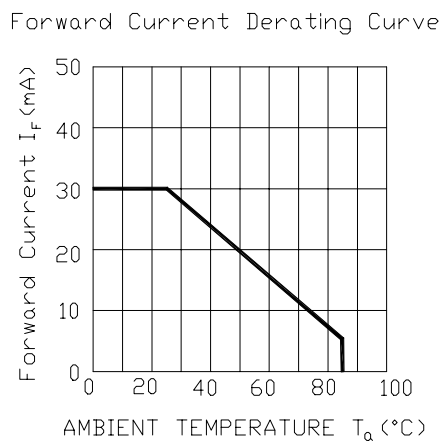
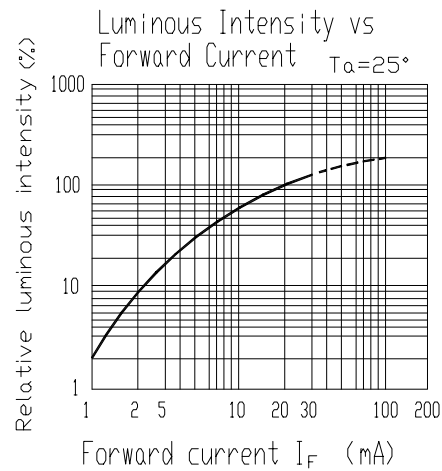
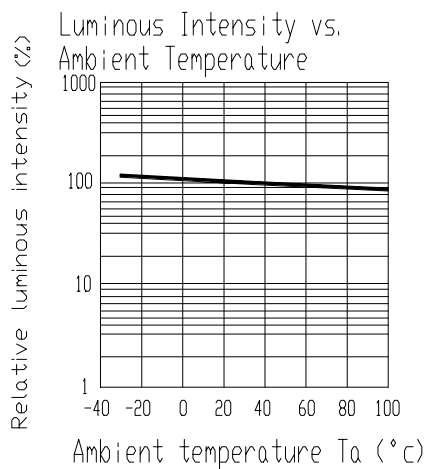
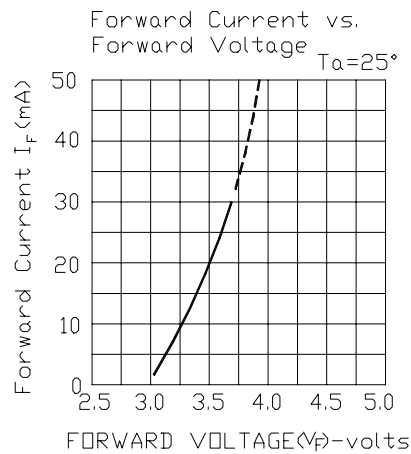
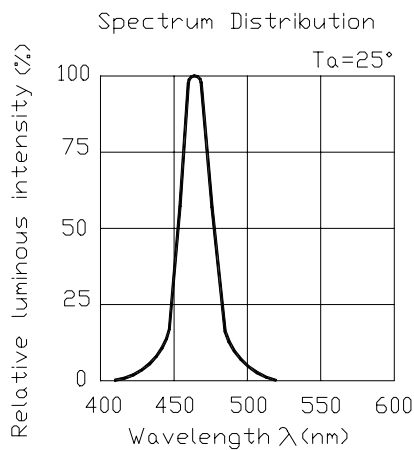


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Typical Electro-Optical Characteristic Curves(SUB)





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Reliability Test Items And Conditions

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	I _F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1

Products are evaluated according to the above standard reliability criteria.



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■ Reflow Temp. / Time :

