

PRODUCT SPECIFICATION

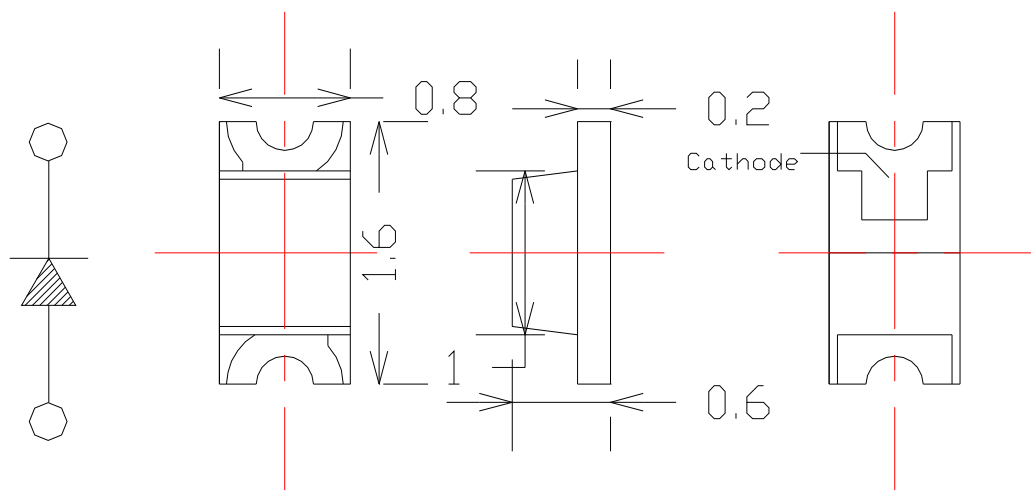
Part No: 0603red

Colour: red

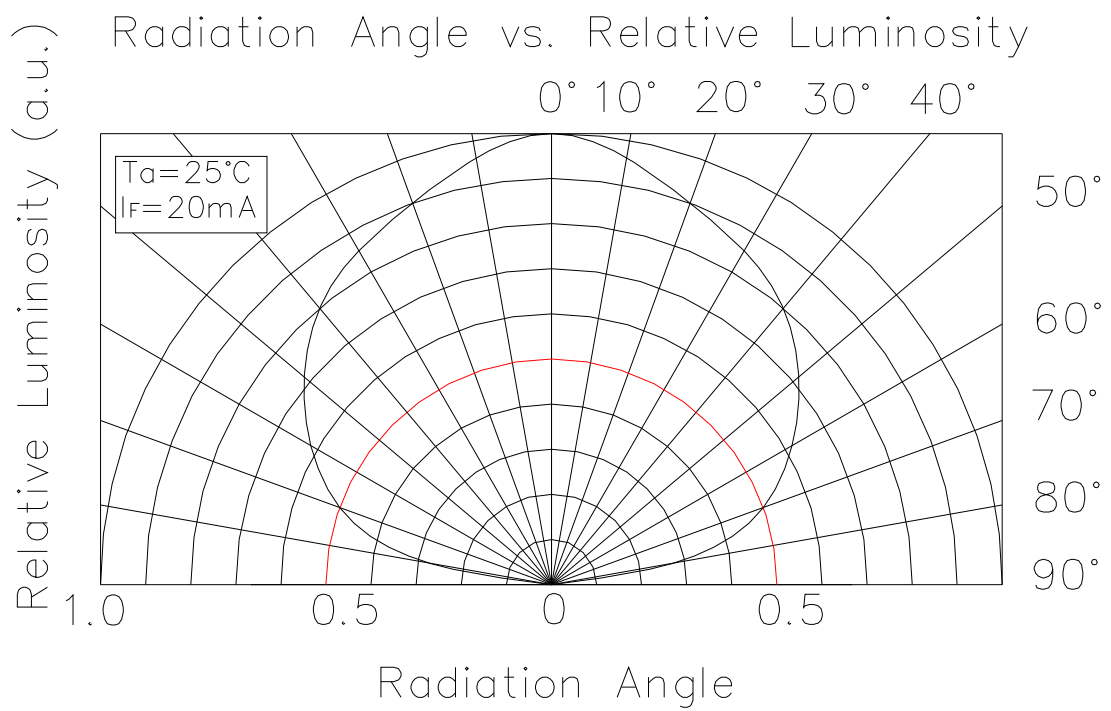
Customer Approved	Checked	Prepared

SMD-LED 0603 red

■ Outline Dimension:



■ View Angle:



SMD-LED 0603 red

■ Absolute Maximum Ratings (Ta = 25°C)

Items	Symbol	Absolute maximum Rating	Unit
Power Dissipation	P _D	120	mW
Forward Current(DC)	I _F	25	mA
Peak Forward Current	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Operation Temperature	T _{opr}	- 20~ + 75	°C
Storage Temperature	T _{stg}	- 30~ + 80	°C
Lead Soldering Temperature	T _{sol}	Max.260°C for 5 sec Max. (3min from the base of the epoxy bulb)	

Pulse width ≤ 0.1msec duty ≤ 1/10

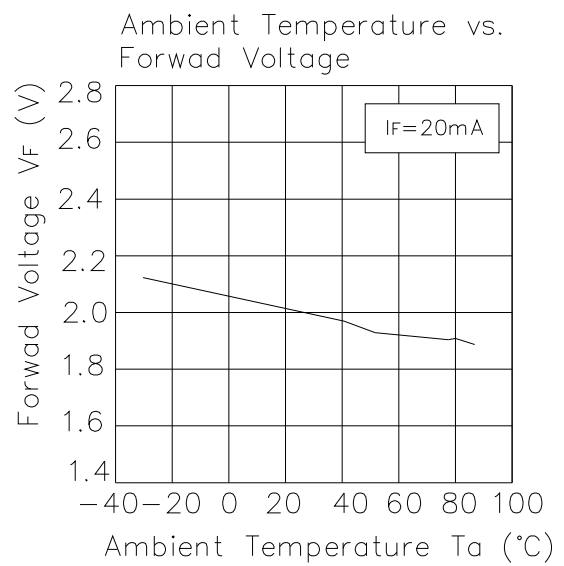
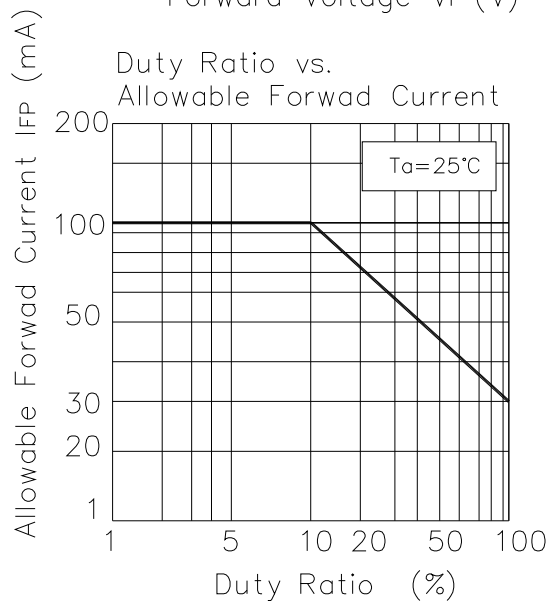
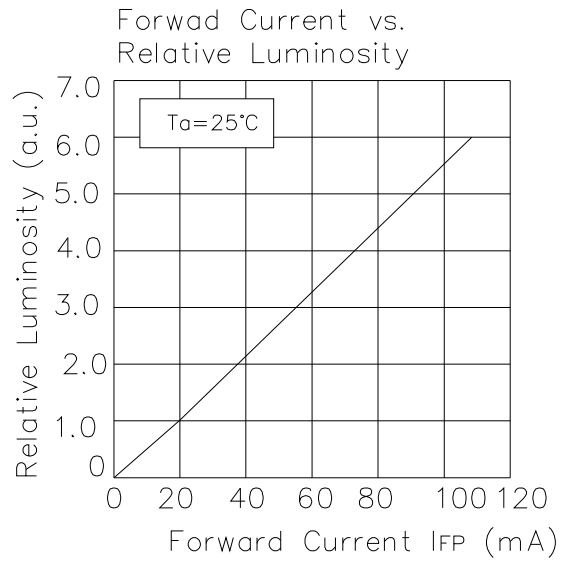
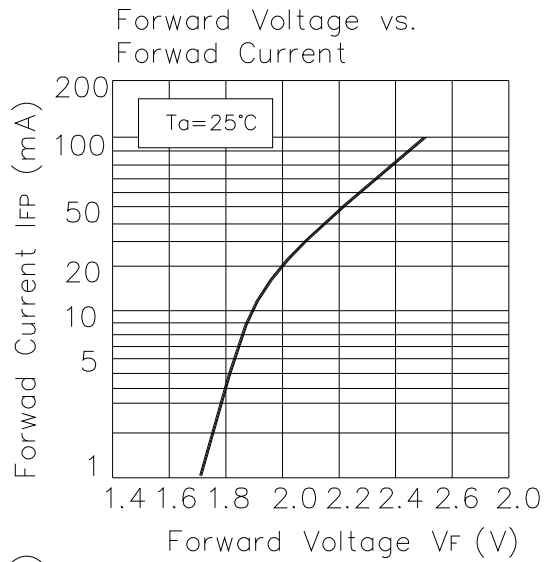
■ Typical Electrical & Optical Characteristics(Ta=25°)

Items	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F = 20mA	1.8	2.2	---	V
Reverse Current	I _R	V _R = 5V	---	---	10	μ A
Dominant Wavelength	λ _d	I _F = 20mA	620	625	630	nm
Luminous Intensity	I _v	I _F = 20mA	80	110		mcd
View Angle	2 θ 1/2	I _F = 20mA	---	140	---	Deg

Rank	Luminous Intensity (mcd)	Rank	Luminous Intensity (mcd)	Rank	Luminous Intensity (mcd)
J	80~105	K	105~150		

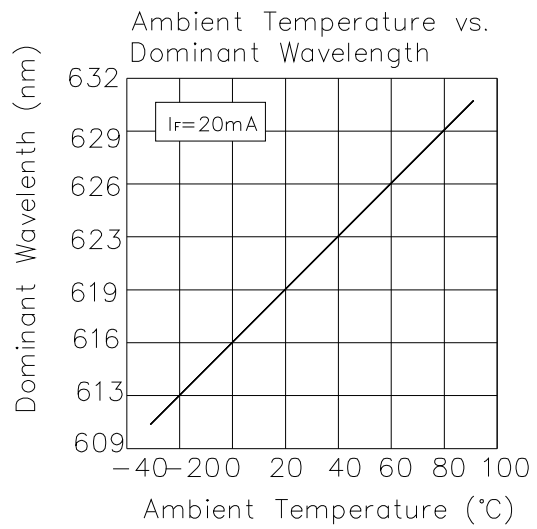
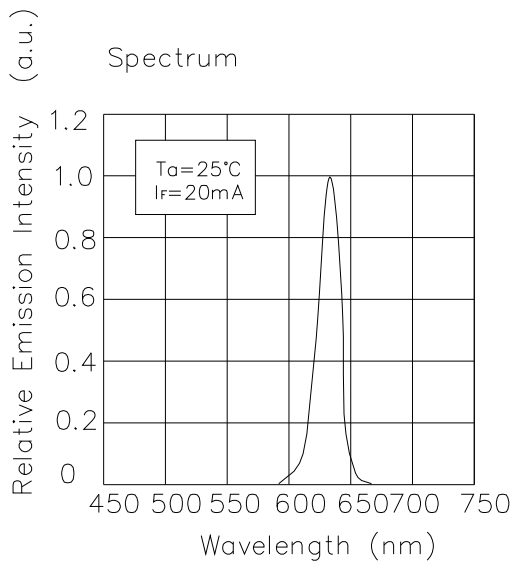
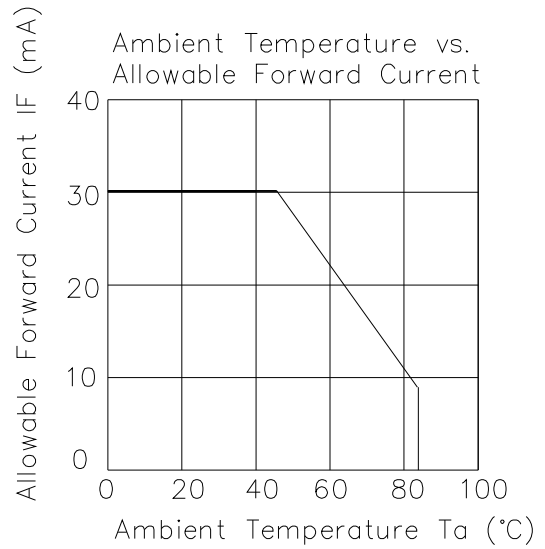
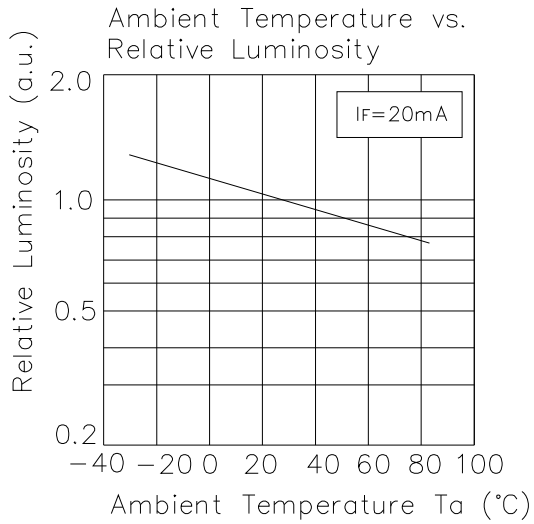
SMD-LED 0603 red

■ Typical Electrical/Optical Characteristics Curves:



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■ Reliability Test :

Classification	Test Item	Standard Test Method	Test Conditions	Duration	Units Tested	Number of Damaged
Life Test	Operating Life Test	JIS7021:B4 MIL-STD-202:107D MIL-STD-750:1026	T _A =25°C ± 5°C, I _F =30mA	1000h	22	0/22
Environment Test	High Temperature Storage	JIS7021:B10 MIL-STD-202:210A MIL-STD-750:2031	T _A =100°C ± 5°C	1000h	22	0/22
	Low Temperature Storage	JIS7021:B12	T _A = - 55°C ± 5°C	1000h	22	0/22
	Temp & Humidity Test	JIS7021:B11 MIL-STD-202:103D	T _A =85°C ± 5°C RH=85% ± 5%RH	1000h	22	0/22
	Thermal Shock Test	JIS7021:B4 MIL-STD-202:107D MIL-STD-750:1026	- 10°C ± 5°C ← → 100°C ± 5°C 5min - 5min	50 Cycles	22	0/22
	Temperature Cycling Test	JIS7021:A3 MIL-STD-202:107D MIL-STD-750:1051	- 55°C ~ 25°C ~ 85°C ~ 25°C 3min - 5min - 30min - 5min	50 Cycles	22	0/22
Mechanical Test	Resistance to Soldering Heat	JIS7021:A1 MIL-STD-202:210A MIL-STD-750:2031	260 ± 5°C, 10 ± 1sec	1 time	22	0/22
	Lead Integrity	MIL-STD-750D Method 2036.3	Load 2.5N 0° ~ 90° ~ 0°	3time	22	0/22

2.Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min	Max
Forward Voltage	V _F	I _F =20mA	---	Initial Data × 1.1
Luminous Intensity	I _V	I _F =20mA	---	Initial Data × 0.7
			Initial Data × 0.7	---
Reverse Current	I _R	V _R =5V	---	100 μ A