

LED – Light Emitting Diode

0-05-12-17 Preliminary

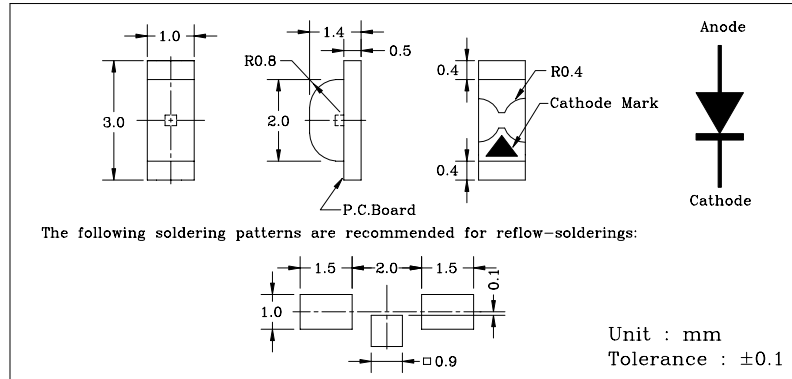
Surface Mount Device

Module No.: WSR3010RUC-20GQ

Features:

RED
 Water Clear
 Ultra Bright
 Tape & Reel
 3.0mmX1.0mm
 Right Angle

Dimensions



Absolute Maximum Ratings

(Ta=25°C)

Descriptions	Symbol	Value	Unit
Continuous Forward Current	I_F	30	mA
Peak Forward Current *1	I_{FM}	35	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	-25 ~ +65	°C
Storage Temperature	T_{stg}	-25 ~ +85	°C
Soldering Temperature *2	T_{sol}	260	°C

*1 Duty ratio = 1/10, Pulse width = 0.1ms.

*2 Soldering time: Maximum 5 seconds.

Reflow soldering: Pre-heating: 120~150°C for 60~120sec.

Operating heating: max 240°C for max 5sec.

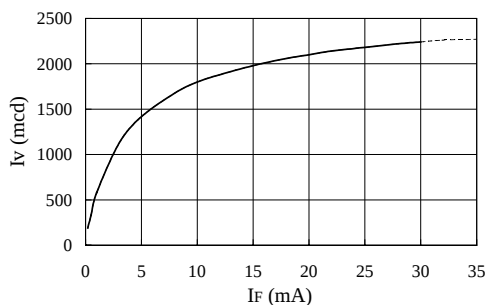
Electro-optical Characteristics

(Ta=25°C)

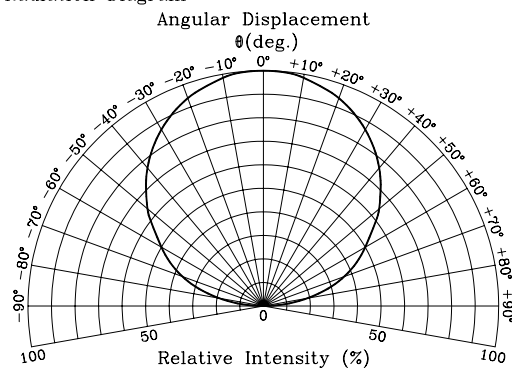
Descriptions	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=20mA$		2.0	2.5	V
Luminous Intensity *3	I_v	$I_F=20mA$	1300	2100		mcd
Peak Emission Wavelength	λ_p	$I_F=20mA$		640		nm
Spectrum Radiation Bandwidth	$\Delta\lambda$	$I_F=20mA$		20		nm
Half Power Beam Angle	$\Delta\theta$			±60		deg.
Terminal Capacitance	C_t			25		pF
Response Frequency	f_c			8		MHz

*3 Tolerance: ±30%

Luminous Intensity vs
Forward Current



Radiation Diagram



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