

Peak Emission Wavelength: 850nm

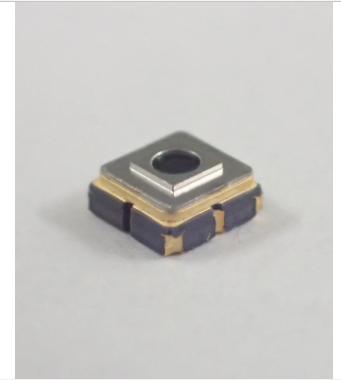
The LS853SMSFY1-WRC is a 850nm Point Source LED Emitter in a Seam Welded Surface Mount package for applications requiring high output power and efficiency.

FEATURES

- > 3mm x 3mm Seam Welded Surface Mount Package
- > Emitting Window Dia 150um
- > High Output Power
- > Hermetically Sealed Package

APPLICATIONS

- > Optical Instruments
- > Optical Switches
- > Aerospace
- > Industrial Controls



Absolute Maximum Ratings (Ta=25°C)



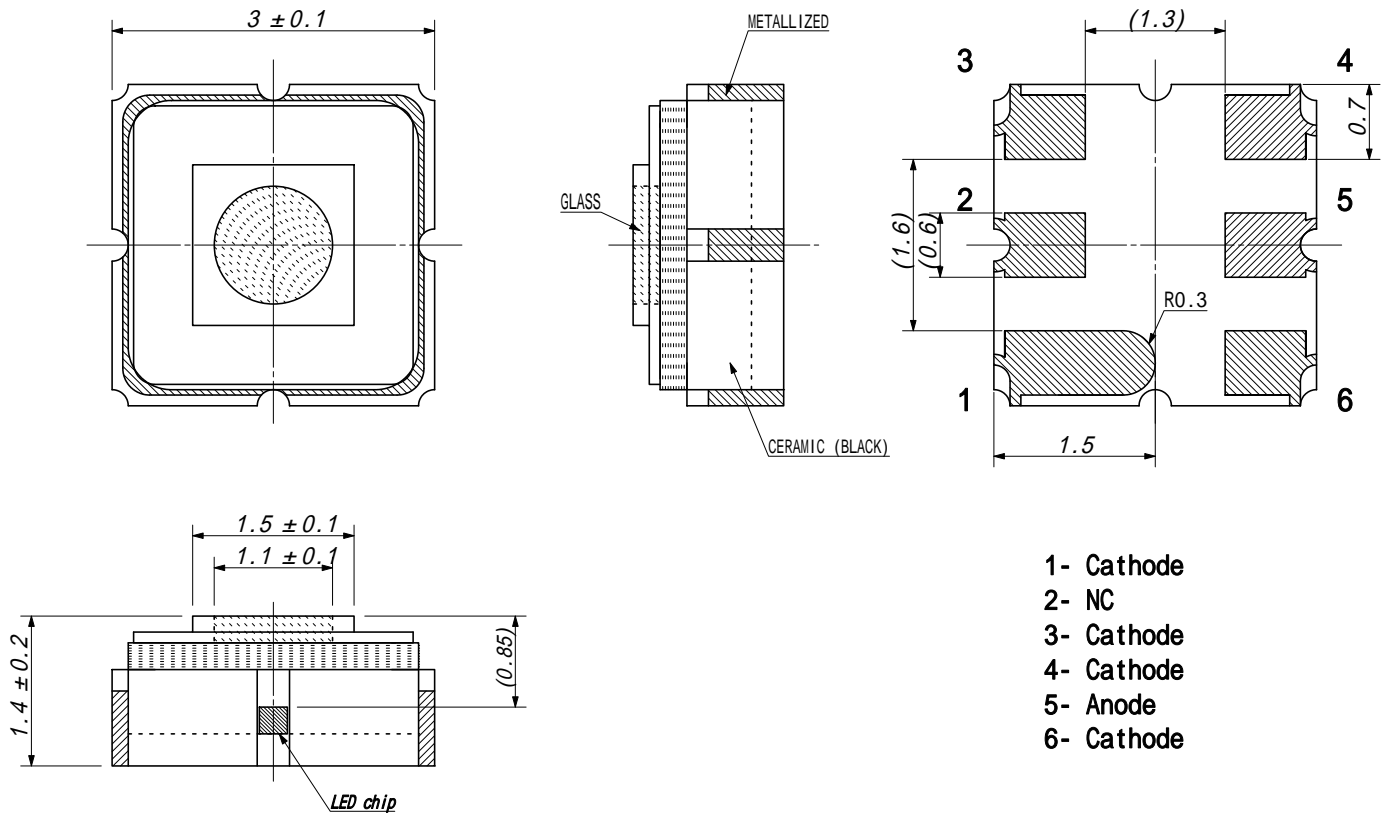
ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	80	mA
Forward Current (Pulse)*1	IFP	0.2	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	100	mW
Operating Temperature Range	Topr	-30 ~ +85	°C
Storage Temperature Range	Tstg	-40 ~ +100	°C

*1: Tw=10μsec, T=10msec

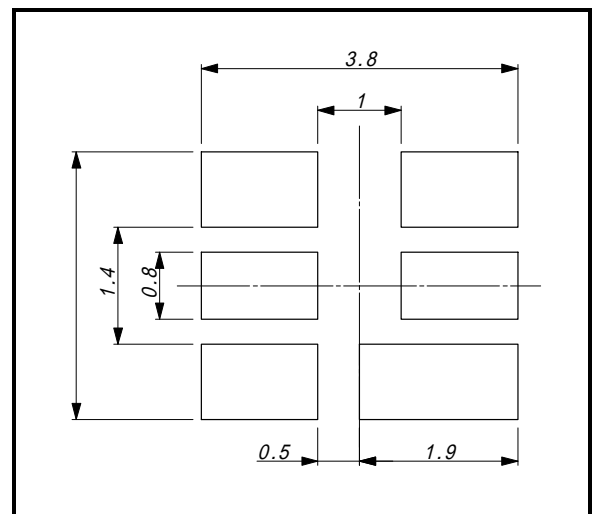
Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	VF	IF=50mA	--	2.0	2.4	V
Power Output	PO	IF=50mA	0.7	1.3	--	mW
Reverse Current	IR	VR=5V	--	--	10	μA
Peak Emission Wavelength	λp	IF=50mA	--	850	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	35	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	+/- 30	--	deg

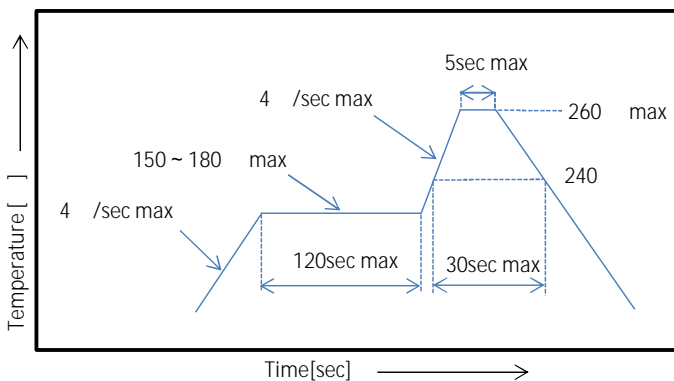
Package Dimensions



Recommended Soldering Pattern [mm]



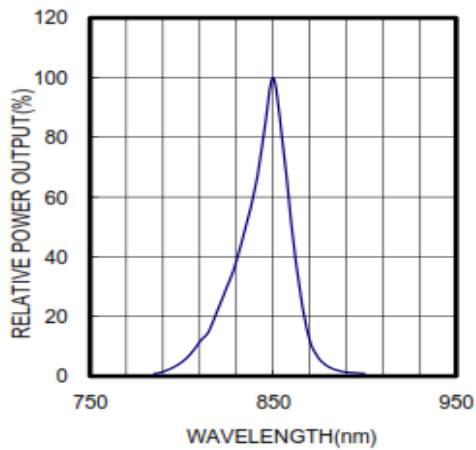
Reflow Soldering Temperature-Profile [Pb free Soldering] (Recommend condition)



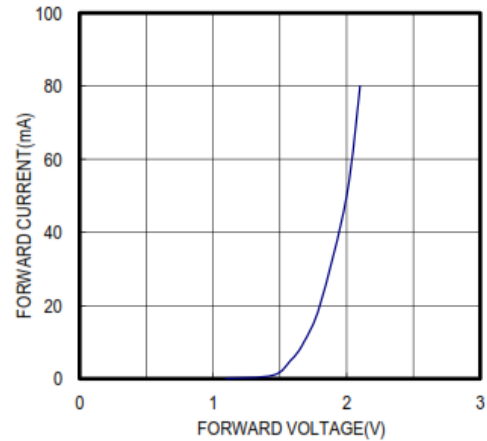
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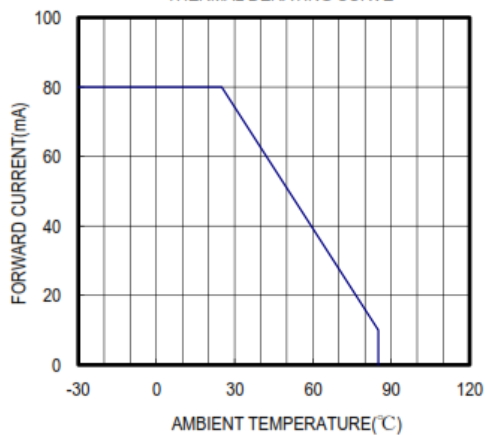
SPECTRAL OUTPUT



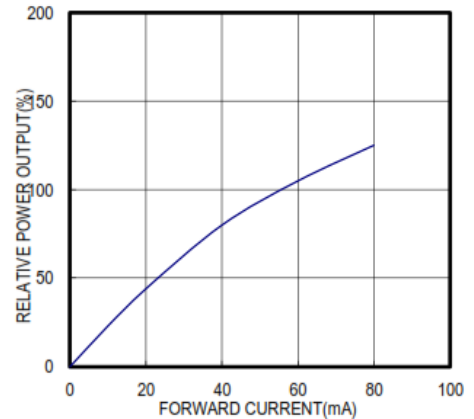
FORWARD I-V CHARACTERISTICS



THERMAL DERATING CURVE

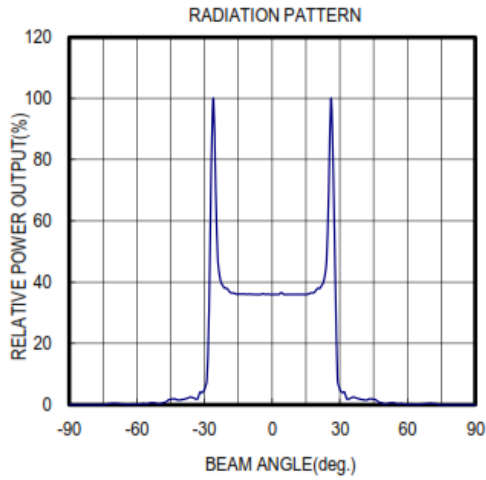


RELATIVE POWER vs FORWARD CURRENT



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