



Top View Type White SMD LED

MODEL NAME : LEMWS51R80FZ10

SPECIFICATION

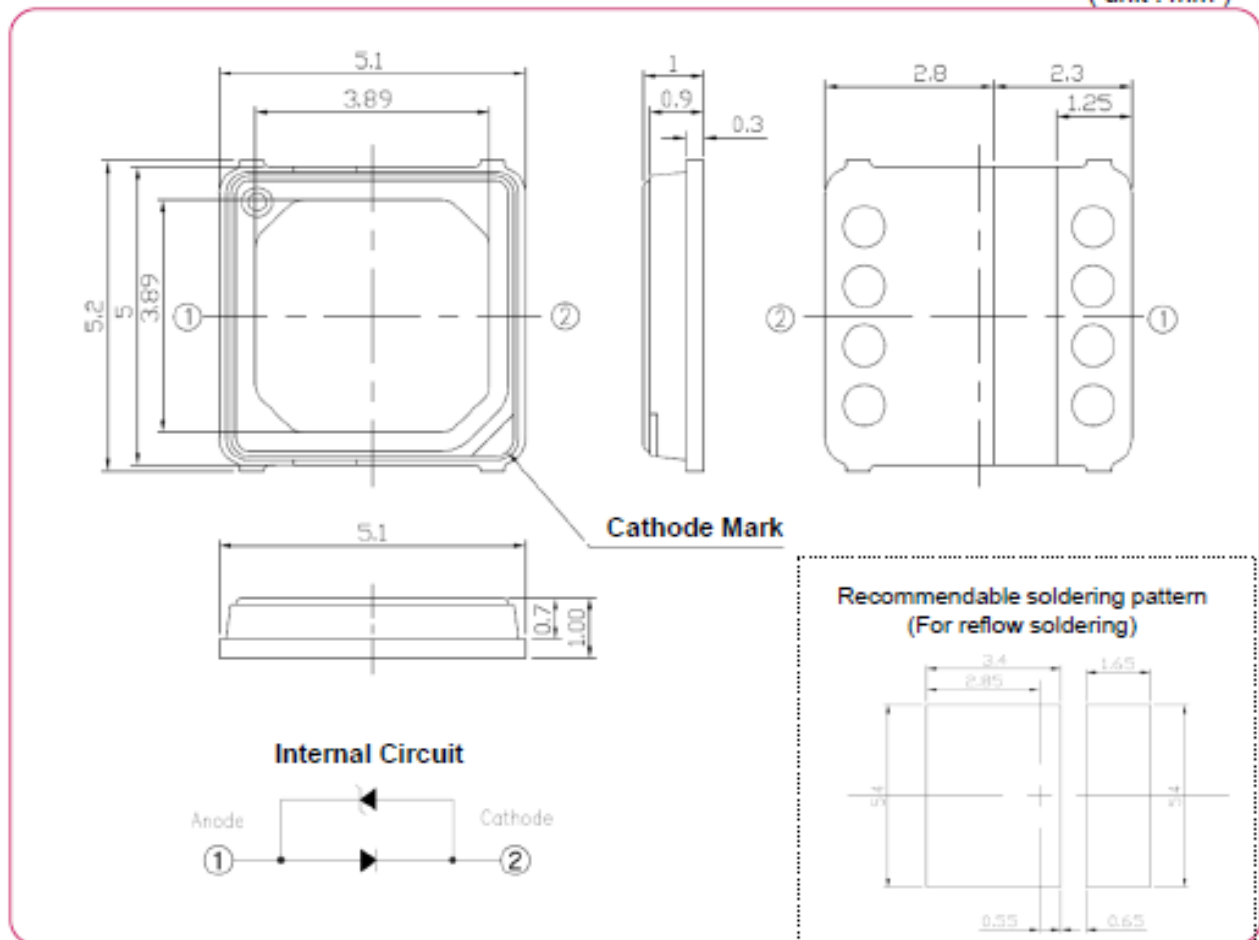
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1. Features

- Lighting Color : White (High CRI)
- Small size surface mount type : 5.1×5.2×1.0 mm (L×W×H)
- Viewing angle : extremely wide (120°)
- Chip Material : InGaN
- Soldering methods : IR reflow soldering
- Taping : 12 mm conductive black carrier tape & antistatic clear cover tape.
1,000pcs/reel, Φ178 mm wheel

2. Outline Dimensions

(unit : mm)



• Tolerances Unless Dimension ±0.1mm

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3. Applications

- Interior and Exterior Illumination, Automotive Lighting

4. Absolute Maximum Ratings

(Ta=25℃)

Items	Symbols	Ratings	Unit
Forward Current	I_f	150	mA
Pulse Forward Current ^{*1)}	I_{fp}	260	mA
Power Dissipation	P_d	480	mW
Operating Temperature	T_{opr}	-30 ~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +100	℃
Junction Temperature	T_j	110	℃

*1) Pulse Width = 10ms, $T_j < 80℃$, Duty ≤ 10%.

5. Electro - Optical Characteristics

(Ta=25℃)

Items	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_f	If=65[mA]	2.7	2.89	3.0	V
Reverse Voltage ^{*1)}	V_r	Ir=10[mA]	0.6	-	1.2	V
Luminous Flux	Φ_v	If=65[mA]	27.0	29.0	-	lm
Luminous Intensity	I_v	If=65[mA]	8.6	9.2	-	cd
CIE Value	X / Y	If=65[mA]	Refer to '6. Rank Sorting Method'			-
Viewing Angle	2 θ 1/2	If=65[mA]	-	120	-	deg
Color Rendering Index	Ra	If=65[mA]	80	-	-	-
Thermal resistance	R_{θ}	If=65[mA]	-	15	-	K/W
Typical Temperature Coefficient of Forward Voltage ^{*2)}	$\Delta V_f / \Delta T_j$	If=65[mA]	-1.5	-	-3.0	mV/°C
ESD		HBM	±5	-	-	kV

*1) The value is based on performance of Zener Diode.

*2) Measured between 25℃=Tj=100℃ at If=65 mA.

* Luminous Intensity (-Iv) : Only reference data.

※ These values measured by Optical Spectrum Analyzer of LG Innotek Co., LTD and tolerances are followings as below

- Luminous Flux (Φ_v) : ± 10%, Forward Voltage(Vf) : ± 0.1, CIE Value : ± 0.005, CRI Value : ± 3

※ All PKG are tested by LG Innotek equipment. But, the values of characteristics of PKG could be changed slightly depend on the Test Equipment.