

Product Code: YL-3535F-C7H1B040R0

ABSOLUTE MAXIMUM RATING (T_j= 25 °C)

Characteristics	Value	Unit
DC Forward Current	3000	mA
Power Dissipation	10.2	W
DC Reverse Voltage	5	V
Storage Temperature	-40 ~ 125	°C
Operating Temperature	-30 ~ 85	°C
LED Junction Temperature	150	°C

PRODUCT CHARACTERISTICS

Characteristics	Unit	minimum	Typ.	Maximum
Thermal resistance, junction to solder point	°C/W		3.7	
Viewing Angle (FWHM)	degrees		120	
Temperature coefficient of voltage	mV/°C		-2.5	
DC Forward Current	mA		1000	3000
Reverse Voltage	V			5
Forward Voltage(@1000mA)	V		2.9	3.4
LED junction temperature	°C			150

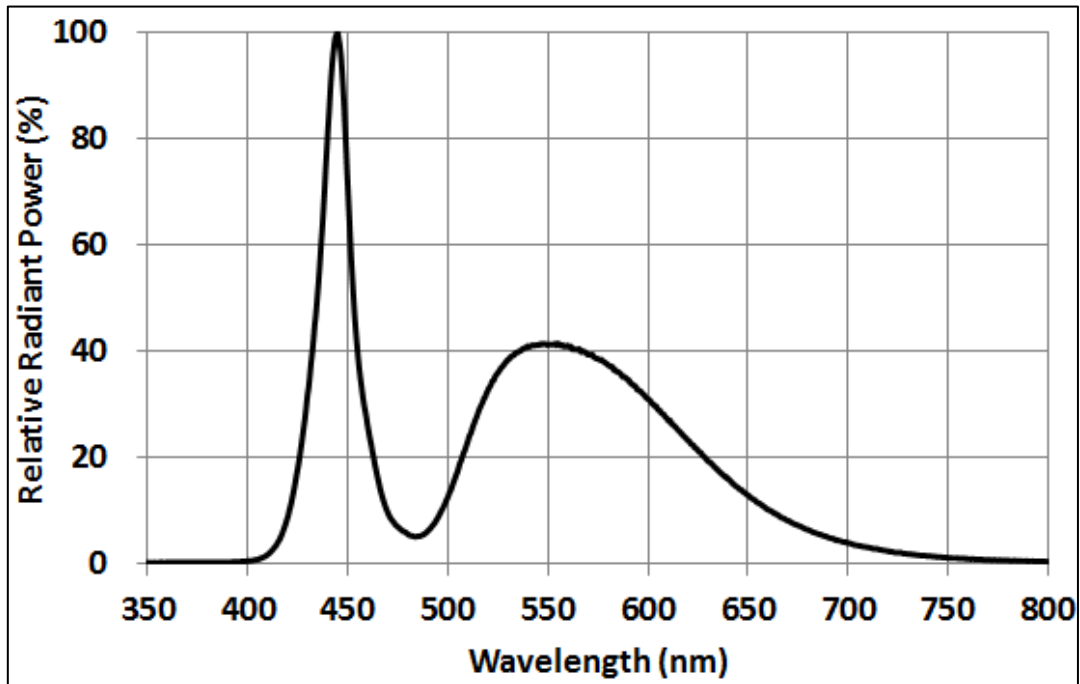
FLUX CHARACTERISTICS (T_j = 25 °C)

Color	CCT		Base Order codes Minimum Luminous Flux (lm) @ 1000mA		Calculated Minimum Luminous Flux (lm)*	Order Code
	Min	Max	Group	@25°C	3000mA	
Automotive White	5450K	6500K	Z10	325	780	
			Z11	360	864	
			Z12	400	960	
			Z13	450	1080	

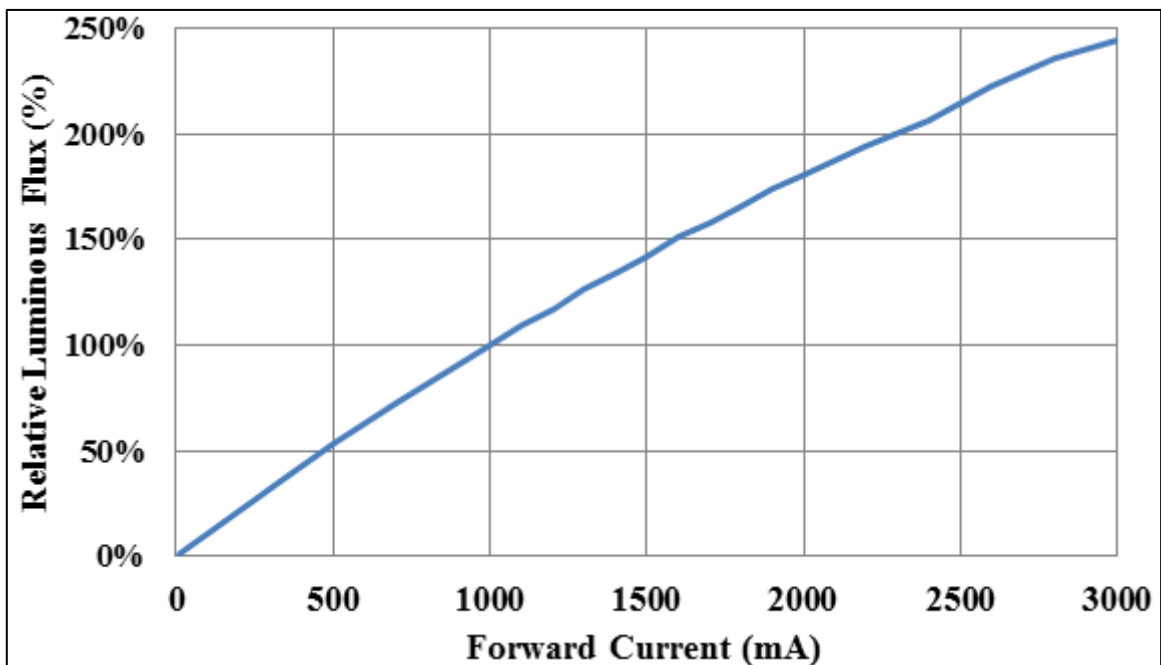
Notes:

- YesLED maintains a tolerance of ±5% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements
- Calculated flux values are for reference only.

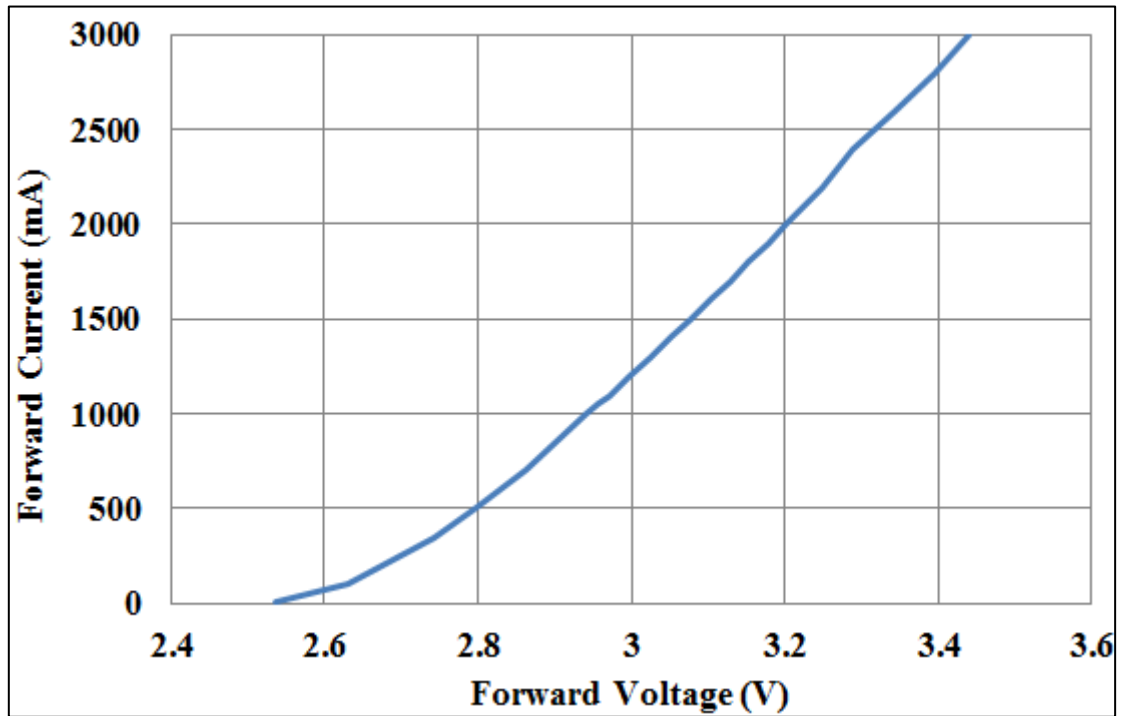
RELATIVE SPECTRAL POWER DISTRIBUTION



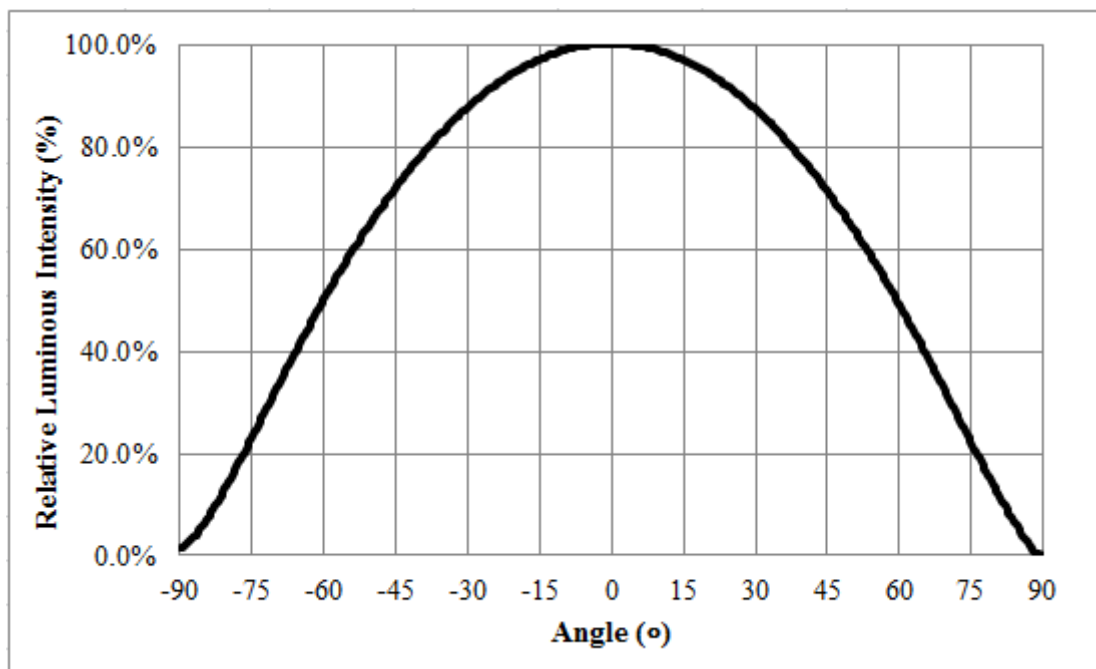
ELECTRICAL CHARACTERISTIC ($T_j = 25\text{ }^\circ\text{C}$)



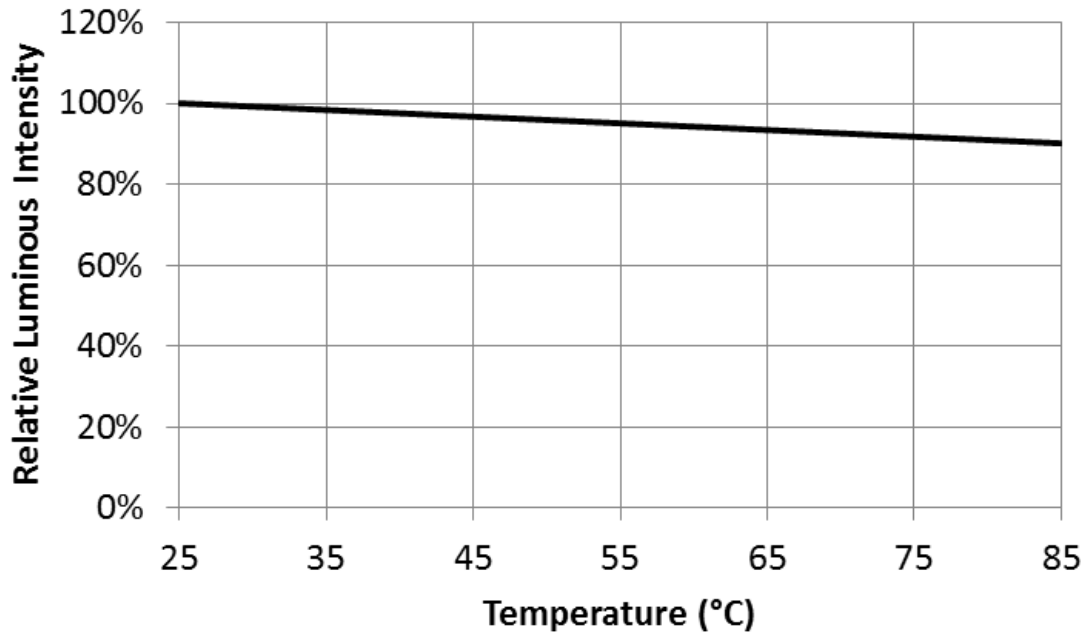
RELATIVE LUMINOUS FLUX VS. CURRENT ($T_j = 25\text{ }^\circ\text{C}$)



TYPICAL SPATIAL DISTRIBUTION



RELATIVE LUMINOUS INTENSITY vs. TEMPURATURE (IF=1000mA)



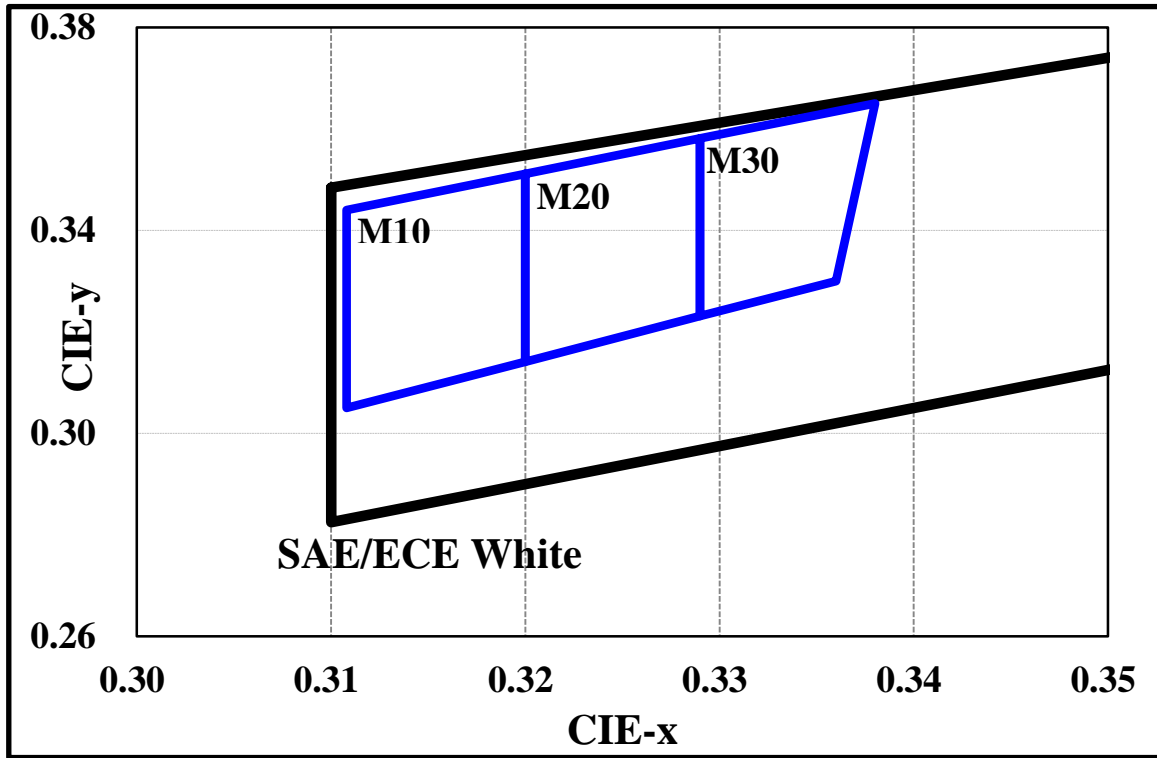
PERFORMANCE GROUPS – BRIGHTNESS (T_j = 25 °C)

Group code	Min. Luminous Flux (lm)	Max. Luminous Flux (lm)
Z10	325	360
Z11	360	400
Z12	400	450
Z13	450	500

PERFORMANCE GROUPS – FORWARD VOLTAGE (T_j =25 °C)

Group code	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
M9	2.8	3.0
MA	3.0	3.2
MB	3.2	3.4
MC	3.4	3.6

YesLED'S STANDARD WHITE CHROMATICITY REGINS PLOTTED ON THE 1931 CIE CURVE



PERFORMANCE GROUPS – CHROMATICITY

Bin Code	x	y
M10	0.32	0.3511
	0.3108	0.344
	0.3108	0.305
	0.32	0.3141

Bin Code	x	y
M20	0.32	0.3511
	0.329	0.3581
	0.329	0.3231
	0.32	0.3141

Bin Code	x	y
M30	0.329	0.3581
	0.338	0.365
	0.336	0.33
	0.329	0.3231

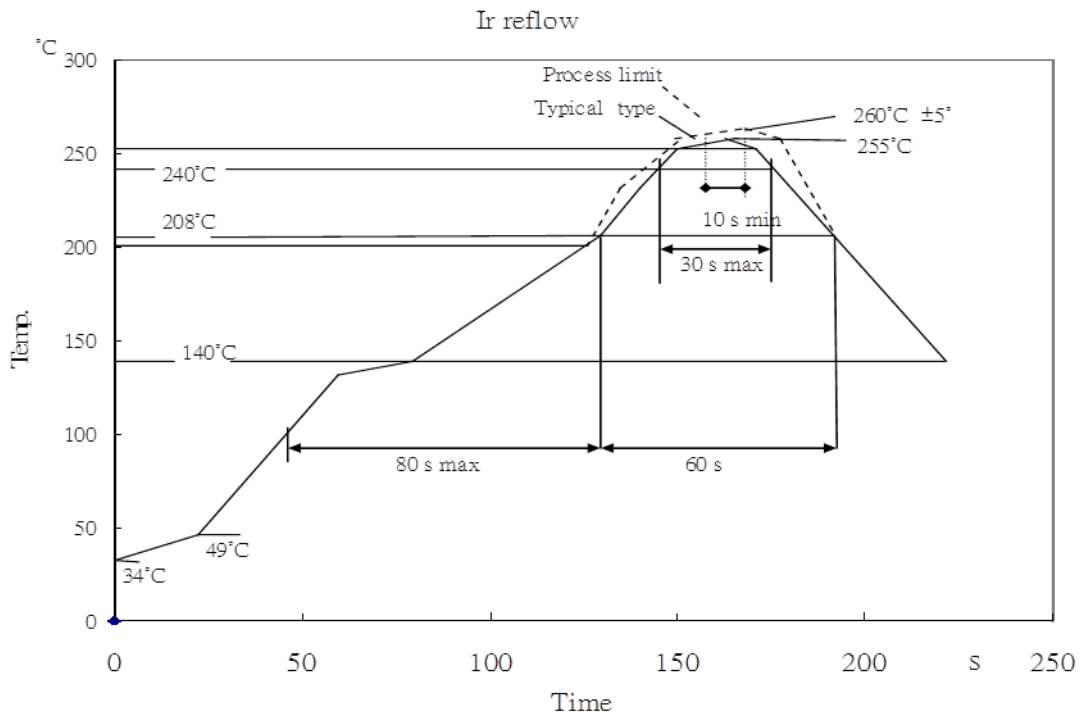
RELIABILITY

Test Item	Test Conditions	Test Period	Ac/Re
Room Temperature Operating Life (RTOL)	IF=1000mA DC	1000hrs	0/1
Wet High Temperature Operating Life (WHTOL)	TA=85°C ; 85% humidity IF=1000mA DC	1000hrs	0/1
High Temperature Operating Life (HTOL)	TA=85°C ; IF=1000mA DC	1000hrs	0/1
Thermal Cycle	-40°C 30min	125°C 30 min	1000 cycle 0/1
Reflow Soldering	Tmax.=260°C	3 times	0/1

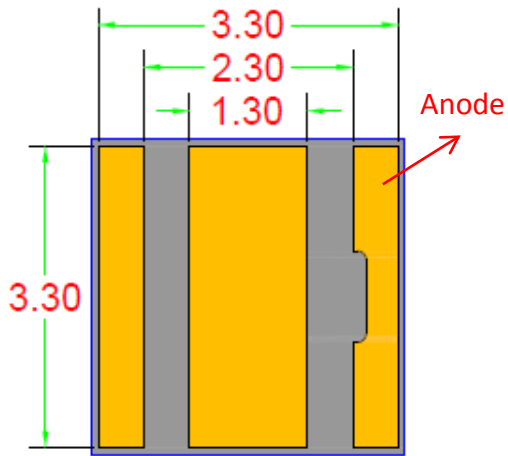
Notes:

- No catastrophic (LED Fail)
- Lumen maintenance > 90%
- Change in Vf < 10%
- Change in white color point $\Delta x \Delta y \pm 0.01$
- No corrosion
- Moisture Sensitivity Level 1 (IPC/JEDEC J-STD-020)

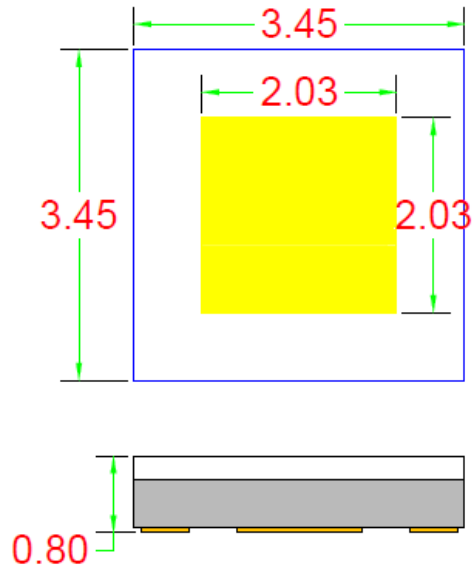
Reflow Soldering Characteristics



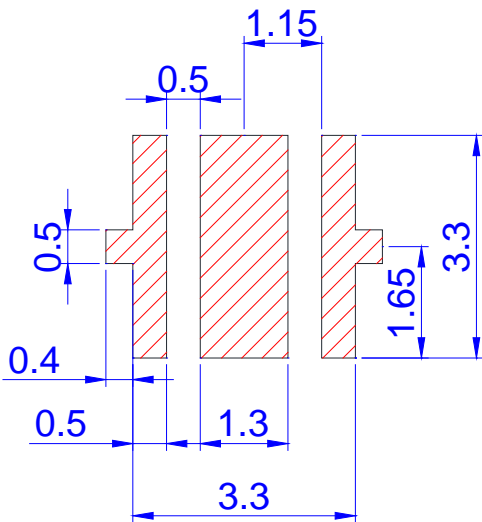
MECHANICAL DIMENSIONS



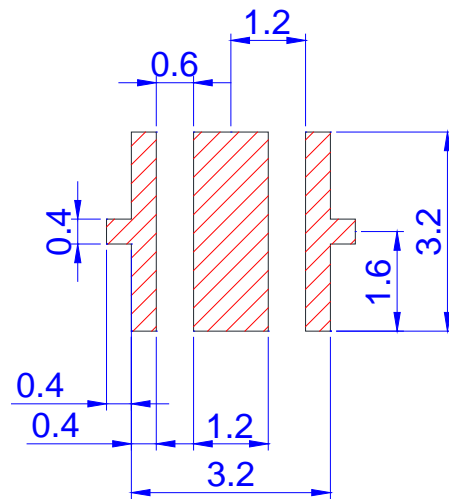
Bottom Layout



Dimension



Recommended Solder Pad



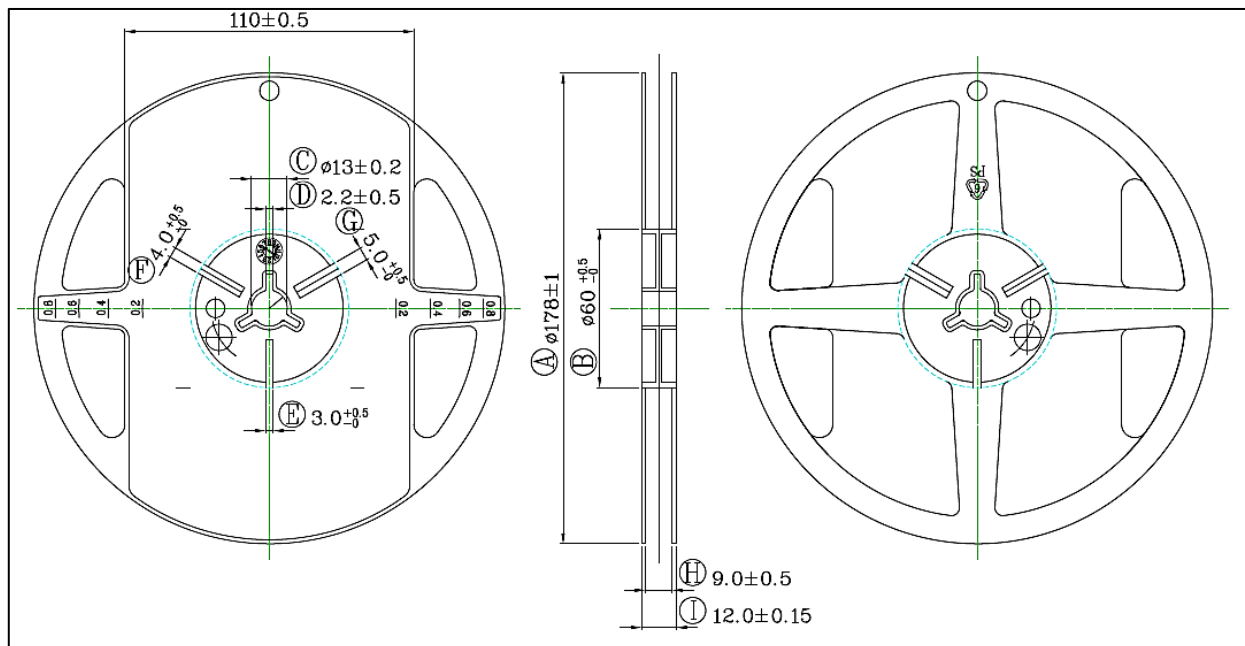
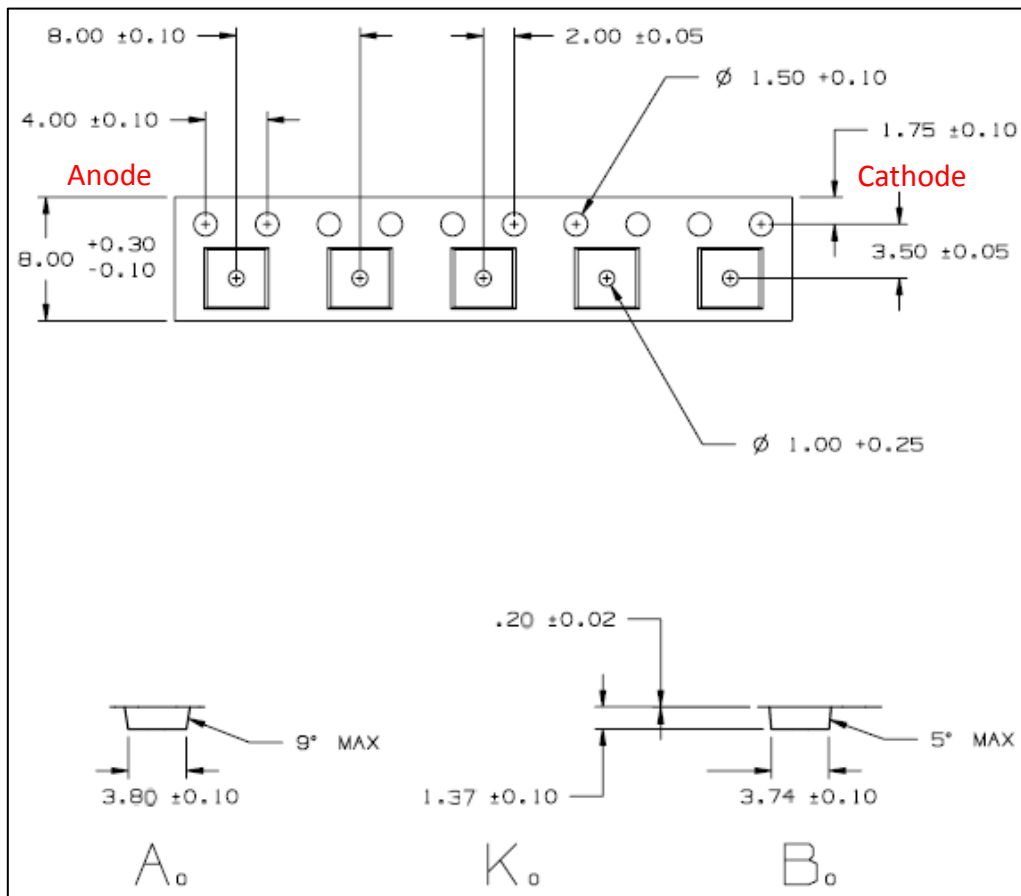
**Recommended Stencil Pattern
(Hatched Area is opening)**

Note:

- Dimension unit: millimeter.
- Measurement tolerances :

0.0	: ± 0.13
0.00	: ± 0.1

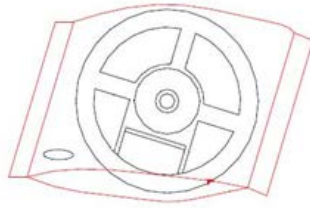
TAPE AND REEL



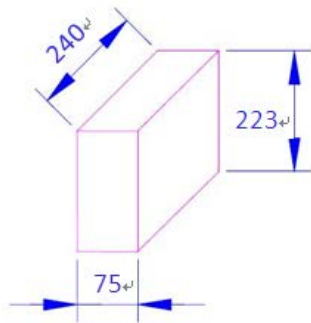
Note:

- Dimension unit: millimeter.

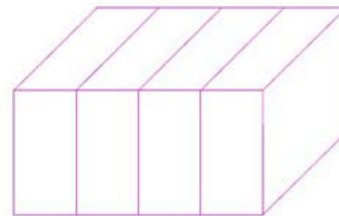
PACKING



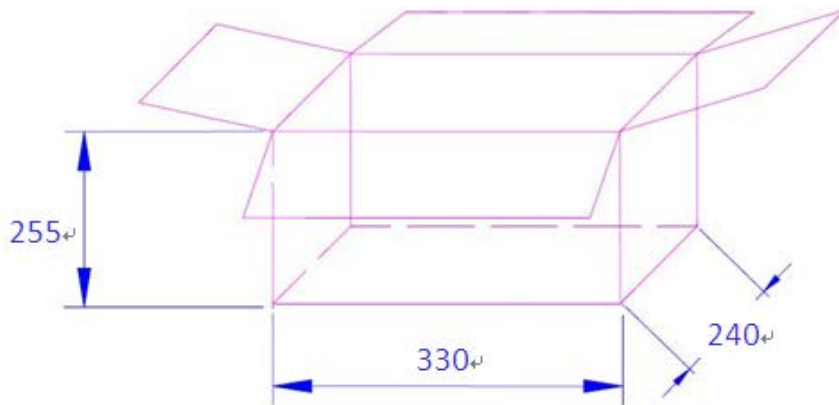
1 Anti-Static Reel in 1 Moistureproof Foil Bag.
(Within Moisture Absorbent Material)



4 Moistureproof Foil Bag in 1 Inner Box.



4 Inner Box in 1 Carton.



CAUTIONS

1. Moisture Sensitivity

In testing, YesLED has found 3535 LEDs to have 1 year floor life in condition $\leq 30^{\circ}\text{C}$ / 60% relative humidity (RH). Moisture testing included a 168-hr soak at $85^{\circ}\text{C}/60\%$ RH followed by 3 times reflow cycles, with visual and electrical inspections at each stage.

YesLED recommends keeping 3535 LEDs in their sealed moisture-barrier packaging until immediately prior to use. YesLED also recommends returning any unusual LEDs to the re-sealable moisture-barrier bag and closing the bag immediately after use.

2. Handling Precautions

Do not handle LEDs with bare hands, it may contaminate the LED surface and affect optical characteristics. In the worst case, catastrophic failure from excess pressure through wire-bond breaks and package damage may result.

Do not stack assembled PCBs together. Failure to comply can cause the resin portion of the product to be cut, chipped, delaminated and/or deformed. It may cause wire to break, leading to catastrophic failures.

3. Eye safety

Warning: do not look at exposed lamp in operation. Eye injury can result.

4. Static Electricity

Wristbands and anti-electrostatic gloves are strongly recommended and all devices, equipment and machinery must be properly grounded when handling the LEDs, which are sensitive against static electricity and surge.

Precautions are to be taken against surge voltage to the equipment that mounts the LEDs. Unusual characteristics such as significant increase of current leakage, decrease of turn-on voltage or non-operation at a low current can occur when the LED is damaged.