Part Number: XLFRS111WYSF

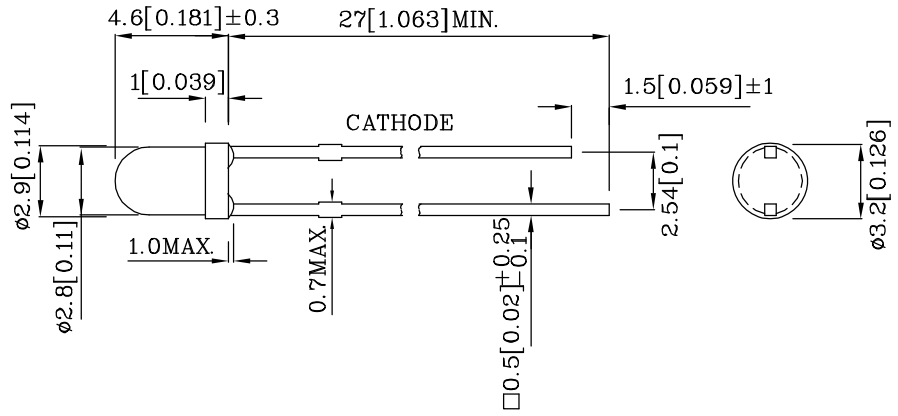
T-1 (3mm) SOLID STATE LAMP

Features

- Radial / Through hole package
- Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant

ATTENTION
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Package Schematics



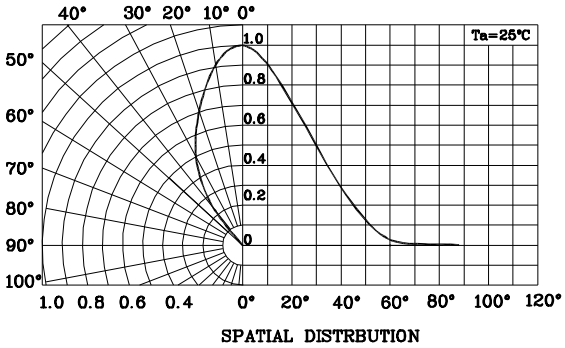
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		**FRS (InGaN)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	100	mA
Power Dissipation	P_D	120	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds		
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds		
Electrostatic Discharge Threshold (HBM)		250	V

Operating Characteristics (T_A=25°C)		**FRS (InGaN)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	3.3	V
Forward Voltage (Max.) (I_F=20mA)	V_F	4.0	V
Reverse Current (Max.) (V_R=5V)	I_R	50	uA
Chromaticity Coordinates (Typ.)	x	0.51	
	y	0.42	
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	100	pF

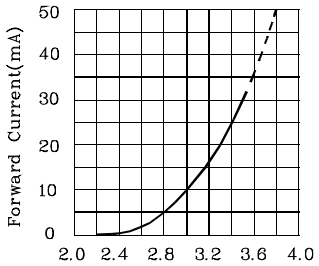
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I_F=20mA) mcd		Viewing Angle 2θ 1/2
				min.	typ.	
XLFRS111WYSF	Yellow	InGaN	Water Clear	1600*	2690*	60°

*Luminous intensity value is in accordance with CIE127-2007 standards.

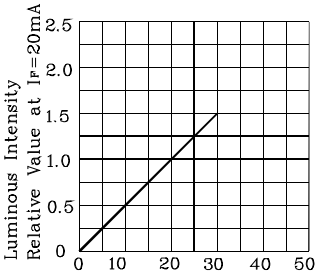


SPATIAL DISTRBUTION

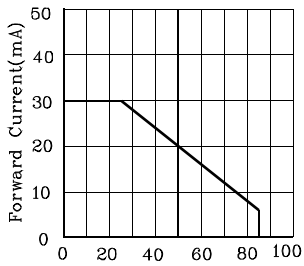
❖ FRS



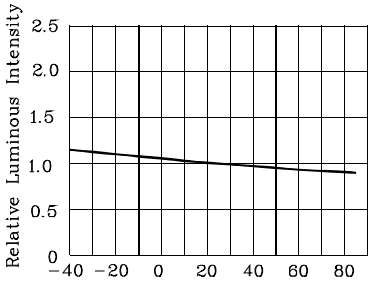
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



IF-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

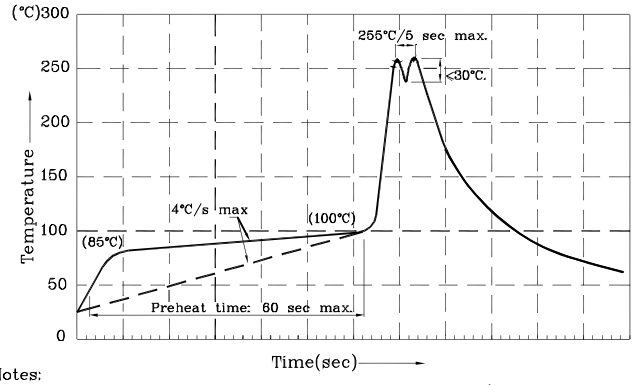


Ambient Temperature Ta(°C)
FORWARD CURRENT
DERATING CURVE



Ambient Temperature Ta(°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes:
1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.

Remarks:

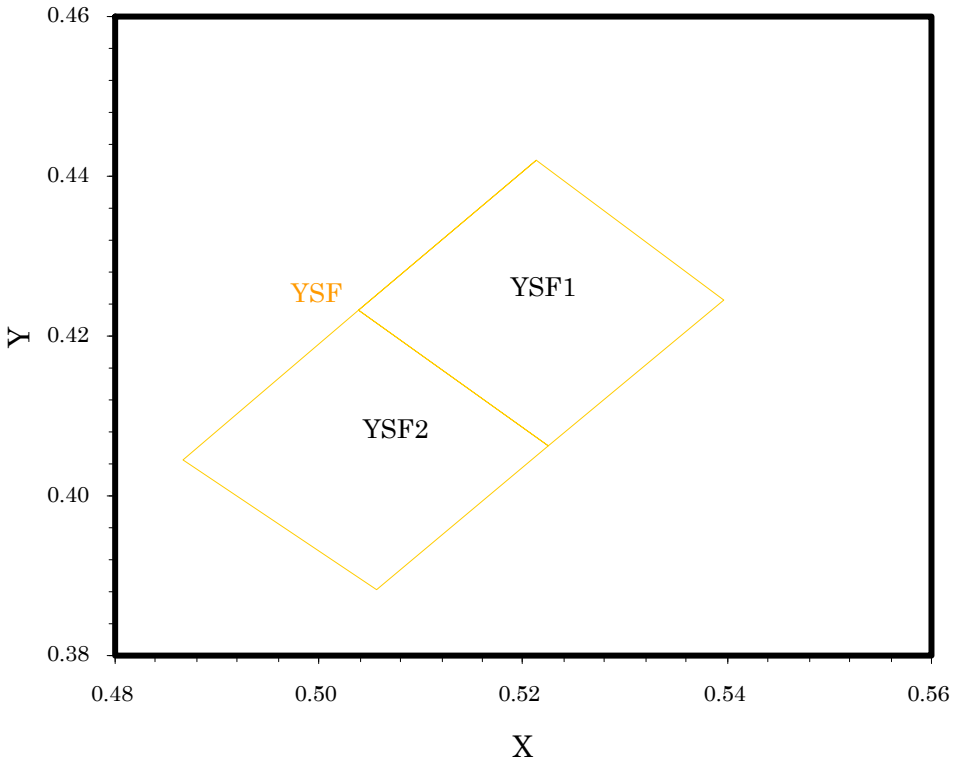
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux,) the typical accuracy of the sorting process is as follows:

1. Luminous Intensity / Luminous Flux: +/-15%
2. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

XLFRS111WYSF

CIE 1931



Bin code	x	y	Bin code	x	y
YSF1	0.5212	0.4220	YSF2	0.5038	0.4232
	0.5038	0.4232		0.4866	0.4045
	0.5225	0.4063		0.5055	0.3882
	0.5396	0.4246		0.5225	0.4063
	0.5212	0.4220		0.5038	0.4232

Notes:
Shipment may contain more than one chromaticity regions.
Orders for single chromaticity region are generally not accepted.
Measurement tolerance of the chromaticity coordinates is ±0.02.

PACKING & LABEL SPECIFICATIONS