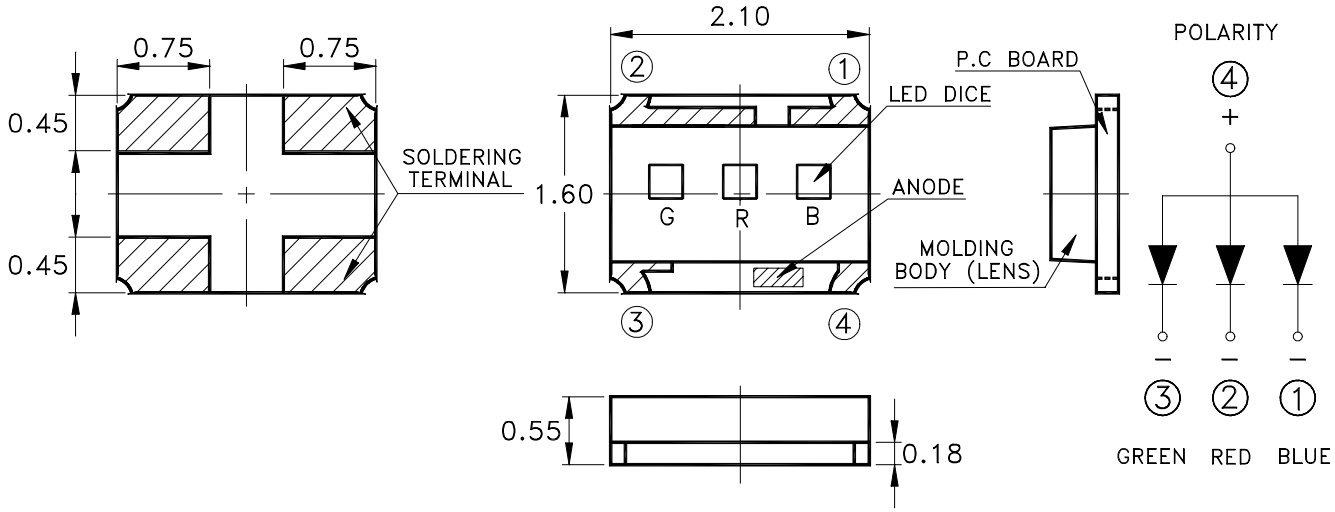
Features

* Full color chip LED.
* Package in 8mm tape on 7" diameter reels.
* Compatible with automatic placement equipment.
* Compatible with infrared and vapor phase reflow solder process.
* EIA STD package.
* I.C. compatible.

Package Dimensions



Devices

Part No.	Lens	Source Color
LTST-C19FD1WT	White Diffused	GaN Blue
		AlInGaP Red
		GaN Green

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1mm (.004") unless otherwise noted.

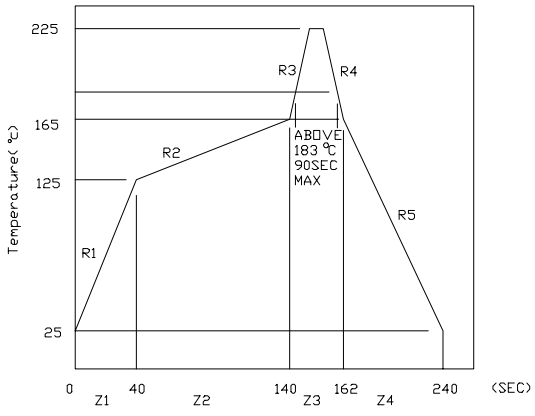
Absolute Maximum Ratings At Ta=25°C

Parameter	LTST-C19FD1WT			Unit
	Blue	Red	Green	
Power Dissipation	120	75	120	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	80	100	mA
Continuous Forward Current	30	30	30	mA
Derating Linear From 30°C	0.5	0.4	0.5	mA/°C
Reverse Voltage	5	5	5	V
Electrostatic Discharge Threshold(HBM)Note A	1000	-	1000	V
Operating Temperature Range	-20°C to + 80°C			
Storage Temperature Range	-30°C to + 100°C			
Wave Soldering Condition	260°C For 5 Seconds			
Infrared Soldering Condition	260°C For 5 Seconds			
Vapor Phase Soldering Condition	215°C For 3 Minutes			

Note A :

HBM : Human Body Model. Seller gives no other assurances regarding the ability of to withstand ESD.

Suggest IR Reflow Condition :



Electrical / Optical Characteristics At Ta=25°C

Parameter	Symbol		LTST-C19FD1WT			Unit	Test Condition
			Blue	Red	Green		
Luminous Intensity	IV	MIN.	20.0	40.0	80.0	mcd	IF = 20mA Note 1
		TYP.	30.0	60.0	120.0		
		MAX.					
Viewing Angle	2θ1/2	TYP.	130			deg	Note 2 (Fig.6)
Peak Emission Wavelength	λP	TYP.	468	621	525	nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd	TYP.	470	615	530	nm	Note 3
Spectral Line Half-Width	Δλ	TYP.	26	18	35	nm	
Forward Voltage	VF	TYP.	3.5	2.0	3.5	V	IF = 20mA
		MAX.	4.0	2.4	4.0		
Reverse Current	IR	MAX.	100	100	100	μA	VR = 5V

Notes: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2. θ 1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength, λ d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

4. Caution in ESD:
Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

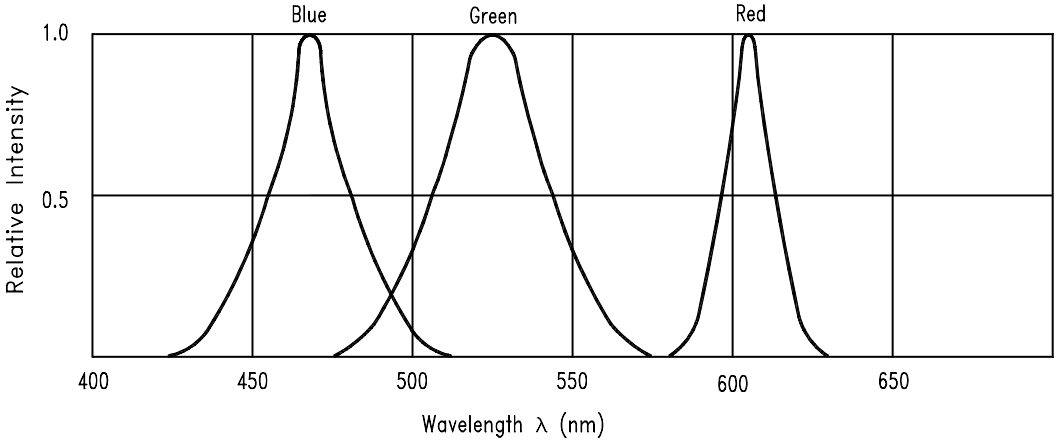


Fig.1 Relative Intensity vs. Wavelength

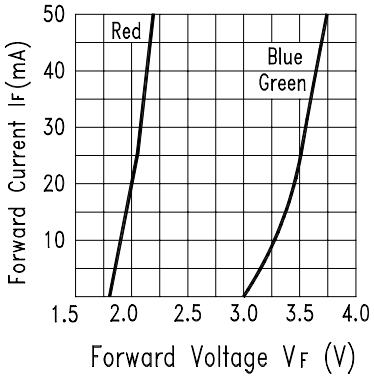


Fig.2 Forward Current vs. Forward Voltage

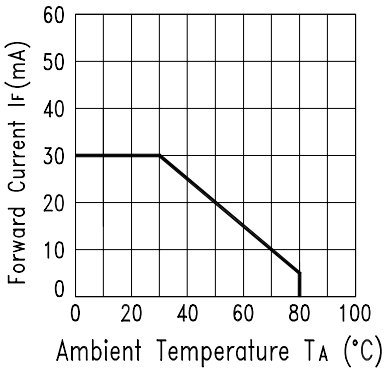


Fig.3 Forward Current Derating Curve

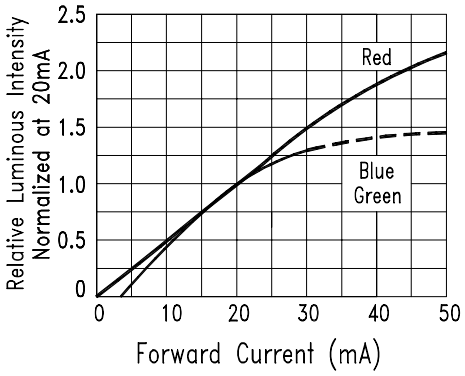


Fig.4 Relative Luminous Intensity vs. Forward Current

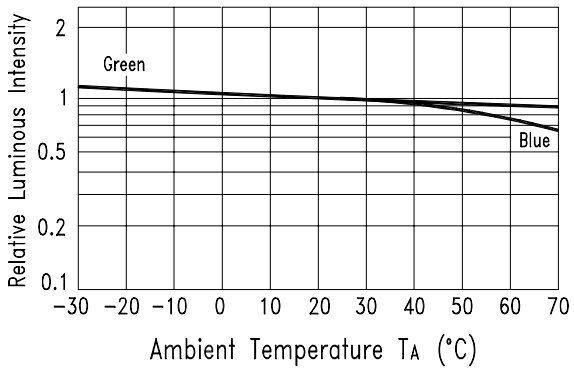


Fig.5 Luminous Intensity vs. Ambient Temperature

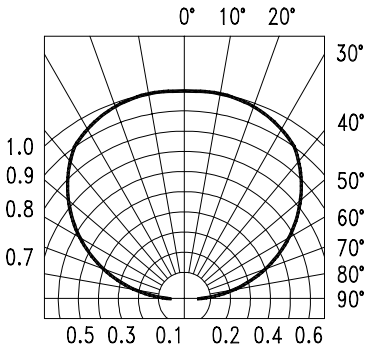
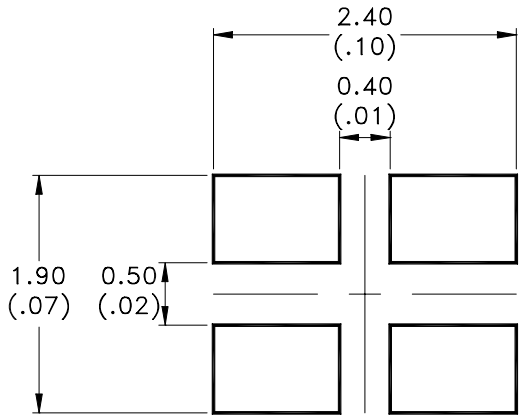


Fig.6 Spatial Distribution

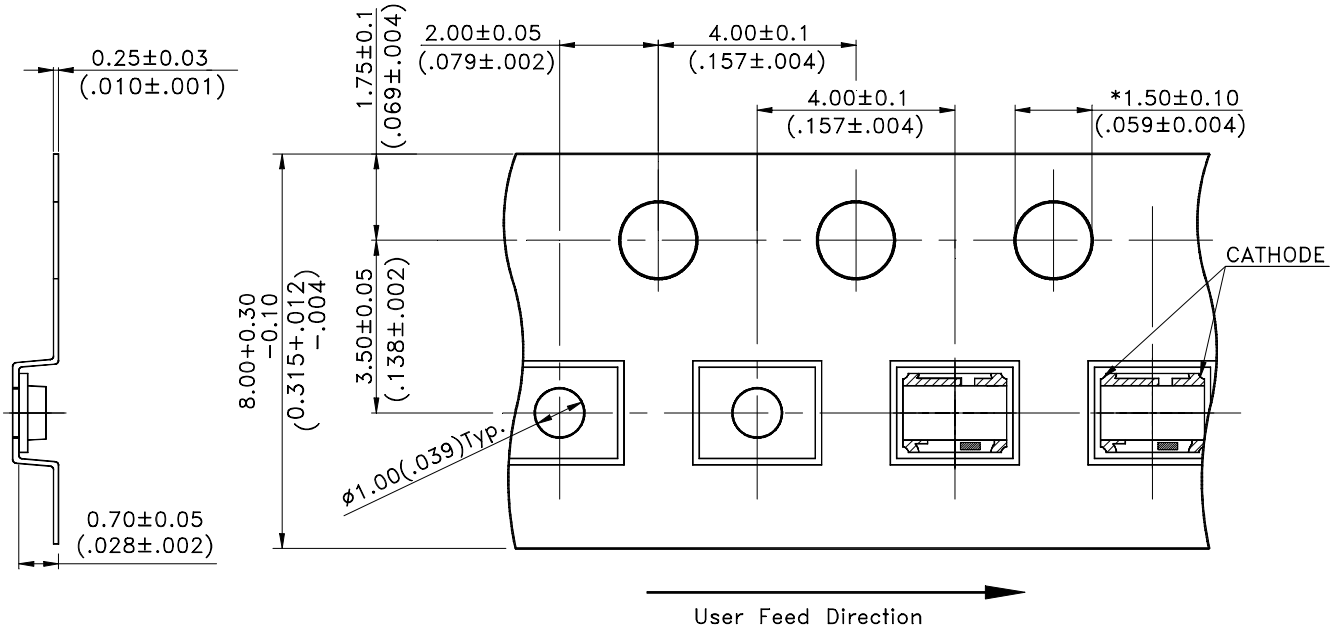
Cleaning

Do not use unspecified chemical liquid to clean LED they could harm the package.
If clean is necessary, immerse the LED in ethyl alcohol or in isopropyl alcohol at normal temperature for less one minute.

Suggest Soldering Pad Dimensions

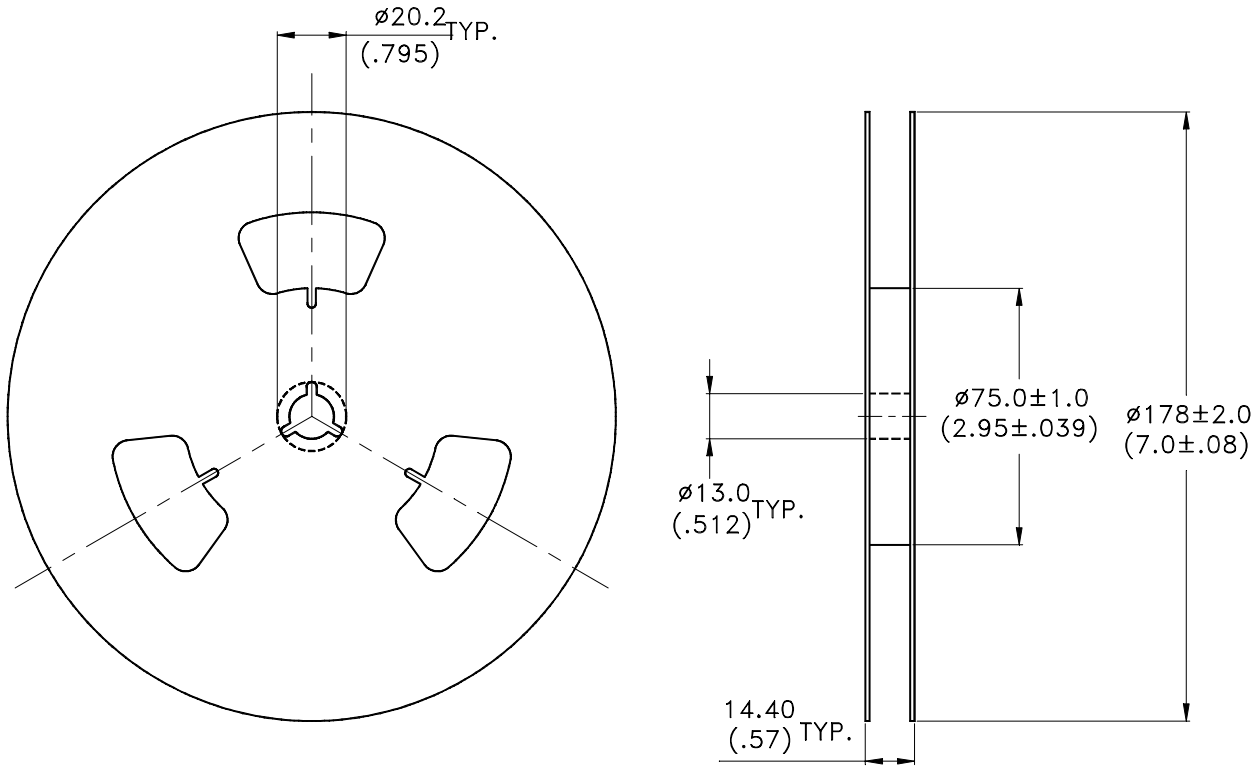


Package Dimensions Of Tape And Reel



Notes:

1. All dimensions are in millimeters (inches).



Notes:

1. Empty component pockets sealed with top cover tape.
2. 7 inch reel-5000 pieces per reel.
3. The maximum number of consecutive missing lamps is two.
4. In accordance with ANSI/EIA 481-1-A-1994 specifications.