



**ETG Inc.**

**8599 Venice Blvd. Unit K,  
Phone: + 1 (310) 202-6400  
<http://www.etgtech.com/>**

**Los Angeles, Ca 90034, U. S. A.  
Fax: +1 (310) 202-6406  
EMail: [info@etgtech.com](mailto:info@etgtech.com)**

## Ⓢ RIGHT ANGLE SMD LED'S

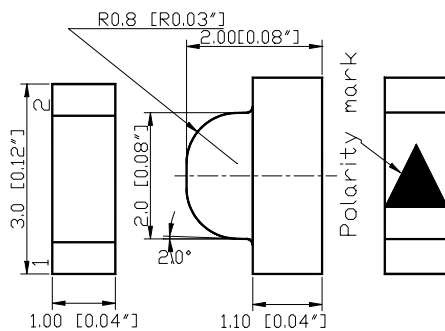
Rev: A    Date: 2002/12/15

ETG-R3020 Series Electro-Optical Characteristics:

Part Numbers	Lighting Color	Material	V <sub>F</sub> (V)		λ (nm)			I <sub>V</sub> (mcd)	Internal Circuit
			Typ	Max	λ <sub>D</sub>	λ <sub>P</sub>	Δλ	Typ	
ETG-R3020AL660-11	Red	GaAlAs	1.80	2.30	643	660	25	22	
ETG-R3020AL640-11	Red	AlGaInP	1.90	2.40	631	640	23	60	
ETG-R3020AL630-11	Red	AlGaInP	1.90	2.40	624	635	25	95	
ETG-R3020AL620-11	Orange	AlGaInP	1.90	2.40	615	620	18	115	
ETG-R3020AL610-11	Orange	AlGaInP	1.90	2.40	605	610	25	85	
ETG-R3020AL600-11	Amber	AlGaInP	1.90	2.40	595	600	20	105	
ETG-R3020AL590-11	Yellow	AlGaInP	2.00	2.50	593	595	32	66	
ETG-R3020AL585-11	Yellow	GaAsP	2.10	2.50	587	586	37	11	
ETG-R3020AL575-11	Green	AlGaInP	2.10	2.60	578	575	18	43	
ETG-R3020AL565-11	Green	GaP	2.25	2.70	572	565	32	20	
ETG-R3020CE525-11	Green	InGaN	3.20	3.80	527	525	40	160	
ETG-R3020CE505-11	Aqua	InGaN	3.30	4.00	509	505	37	160	
ETG-R3020CE470-11	Blue	GaN	3.40	4.00	465	460	68	60	
ETG-R3020CE430-11	Blue	GaN/SiC	4.00	4.50	465	430	60	9	



## Ⓢ Package Outline Drawing:

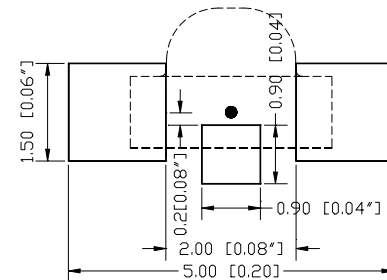


- NOTES:**
1. All dimensions are in millimeters (inches);
  2. Tolerances are  $\pm 0.1\text{mm}$  (0.004inch) unless otherwise noted;
  3. Resin color: water clear.

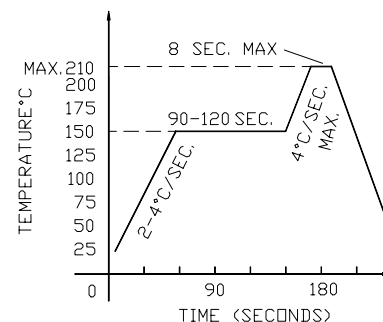
### \* Soldering iron

Basic spec is  $\leq 5\text{sec}$  when  $260^\circ\text{C}$ . If temperature is higher, time should be shorter ( $+10^\circ\text{C} \rightarrow -1\text{sec}$ ). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. Surface temperature of the device should be under  $230^\circ\text{C}$ .

### \* Recommended Soldering Pattern For Reflow Soldering



### \* Recommended Reflow Soldering Profile.



## Ⓢ Absolute Maximum Ratings:

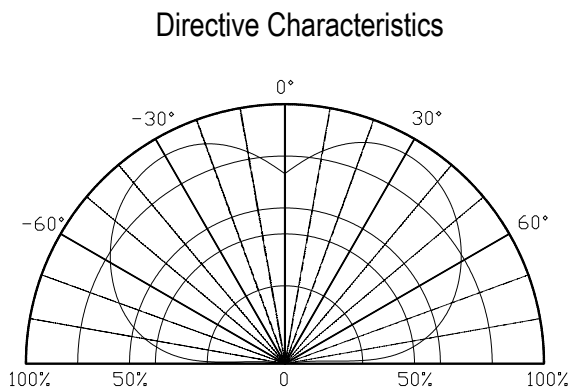
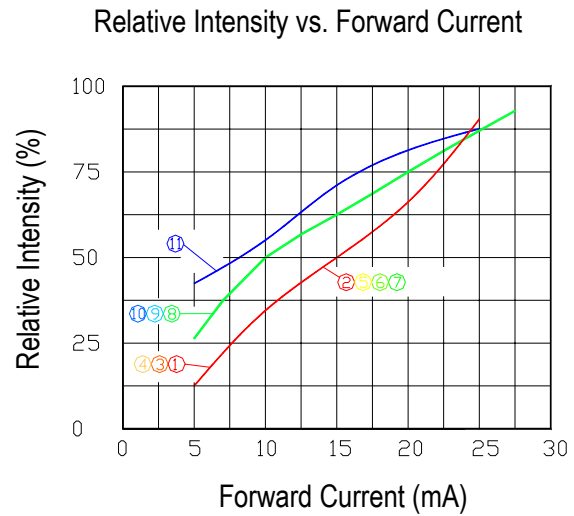
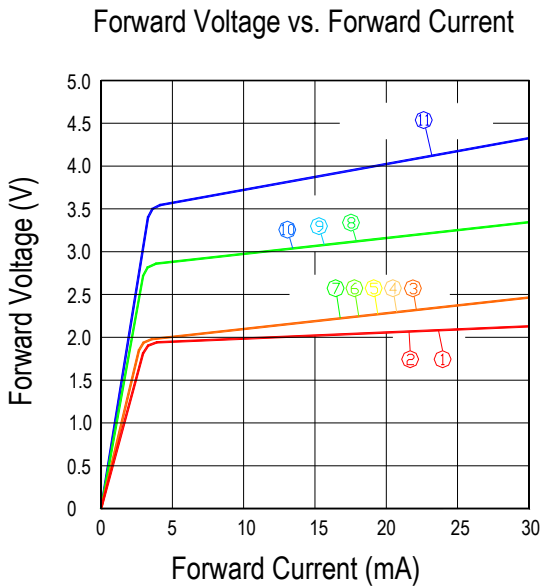
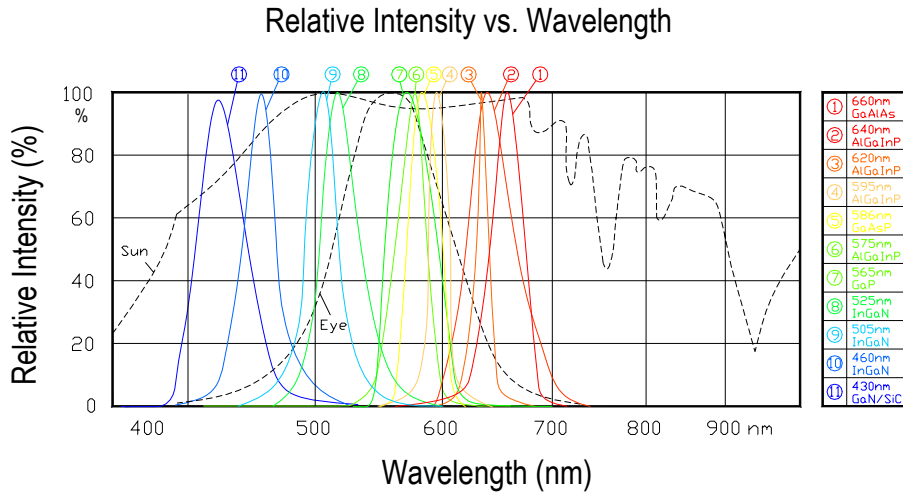
Series	I <sub>F</sub> (mA)	*I <sub>FP</sub> (mA)	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)
ETG-R3020 Series	30	120	5	-20~+80	-20~+100

\*Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width

# \* Optical Characteristic Curves Of ETG-R3020 Series

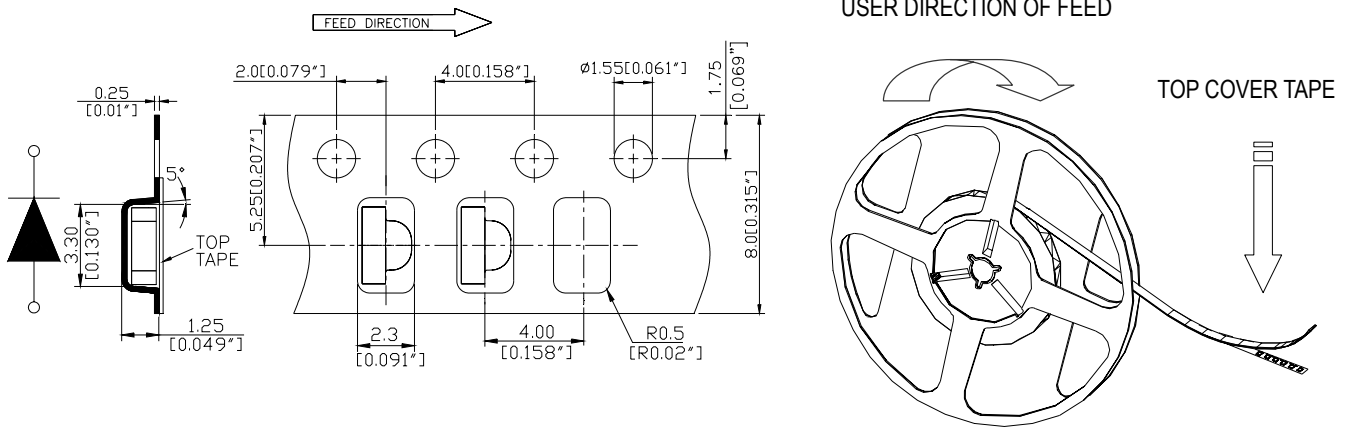
Rev: A

Date: 2002/12/15

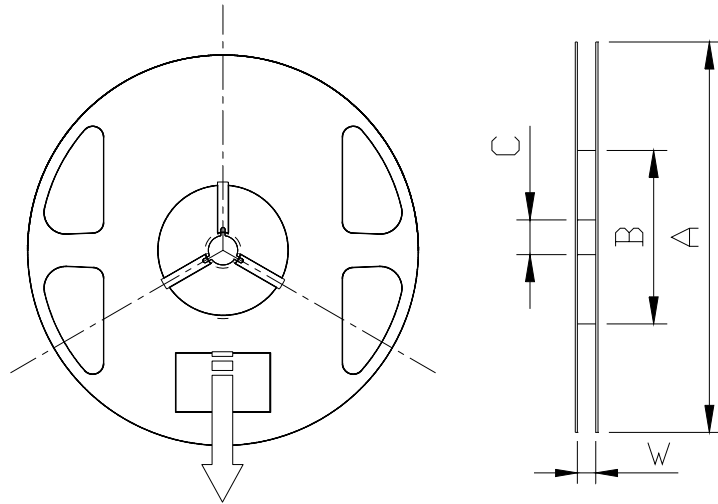


# \* Tape And Reel Of ETG-R3020 Series

Rev: A    Date: 2002/12/15



Dimensions per ANSI/EIA Standard RS-481 All dimensions are in Millimeters (inches).	
A	180[7.09]
B	60[2.36]
C	13.5[0.53]
W	8.4[0.33]
Thickness of top cover tape 0.1[0.004] MAX	



ETG Packaging Label	
PART NO.	
LOT NO.	
QUANTITY	
DATE	
DATA	

## NOTES:

1. Empty component pockets are sealed with top cover tape;
2. Minimum leader length at both ends of the tape is 450 mm;
3. The maximum number of missing lamps is two;
4. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications.
5. 3000pcs/Reel