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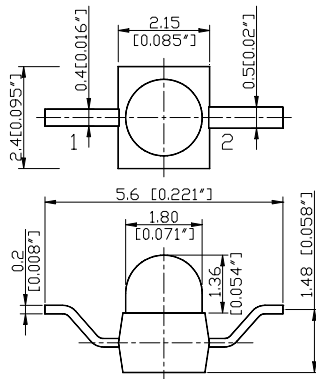
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Rev: A Date: 2002/11/01

ETG-2ZB SERIES		① MINI TYPE LED LAMPS							Internal Circuit
Part Number	Lighting Color	Material	V <sub>F</sub> (V)		λ (nm)			Chip I <sub>v</sub> (mcd)	
			Typ	Max	λ <sub>D</sub>	λ <sub>P</sub>	Δλ	Typ	
ETG-2ZB660-RP	Red	GaAlAs	1.80	2.30	643	660	25	19	
ETG-2ZB640-30	Red	AlGaInP	1.90	2.40	631	640	23	52	
ETG-2ZB630-30	Orange	AlGaInP	1.90	2.40	624	635	25	67	
ETG-2ZB620-30	Orange	AlGaInP	1.90	2.40	615	620	18	75	
ETG-2ZB610-30	Amber	AlGaInP	1.90	2.40	605	610	25	52	
ETG-2ZB600-30	Amber	AlGaInP	1.90	2.40	595	600	20	75	
ETG-2ZB595-30	Yellow	AlGaInP	2.00	2.50	593	595	32	57	
ETG-2ZB588-30	Yellow	GaAsP	2.10	2.50	587	586	37	7	
ETG-2ZB-575-30	Green	AlGaInP	2.10	2.60	578	575	18	37	
ETG-2ZB565-30	Green	GaP	2.25	2.70	572	565	32	17	
ETG-2ZB525-30	Green	InGaN	3.20	3.80	527	525	40	120	
ETG-2ZB505-30	Aqua	InGaN	3.30	4.00	509	505	37	120	
ETG-2ZB460-30	Blue	GaN	3.40	4.00	465	460	68	36	
ETG-2ZB430-30	Blue	GaN/SiC	4.00	4.50	465	430	60	8	



① Package Outline Drawing:

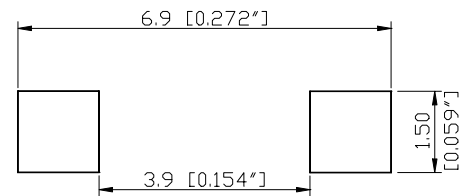


- NOTES:**
1. All dimensions are in millimeters (inches);
  2. Tolerances are ±0.2mm (0.008inch) unless otherwise noted;
  3. Resin color: water clear.

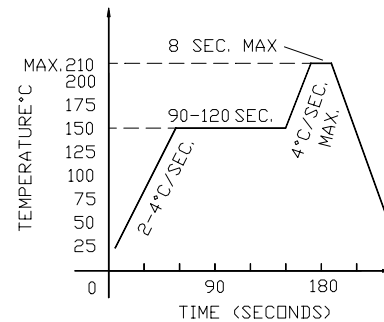
✳ Soldering iron

Basic spec is ≤ 5sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. Surface temperature of the device should be under 230°C.

✳ Recommended Soldering Pattern For Reflow Soldering



✳ Recommended Reflow Soldering Profile.



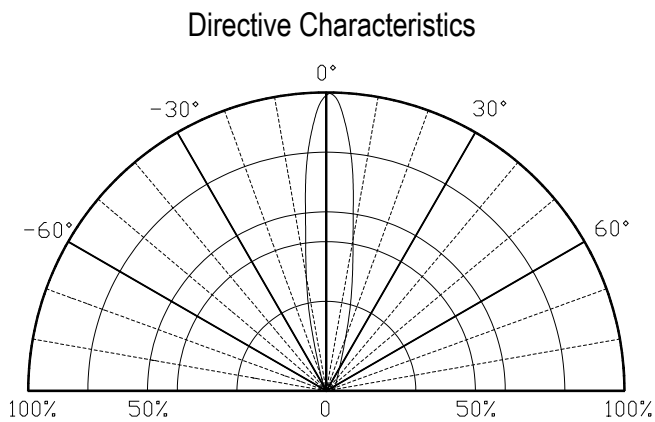
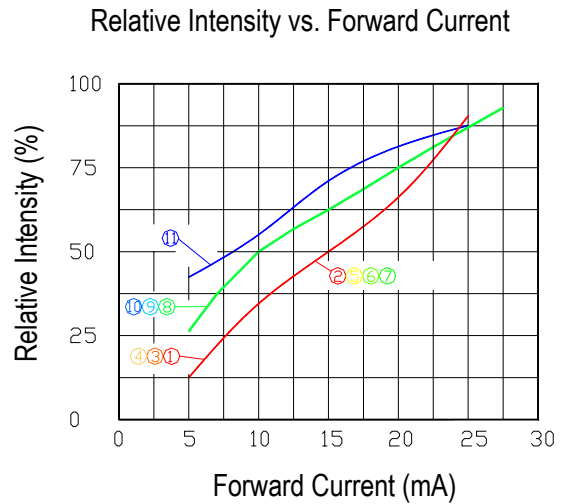
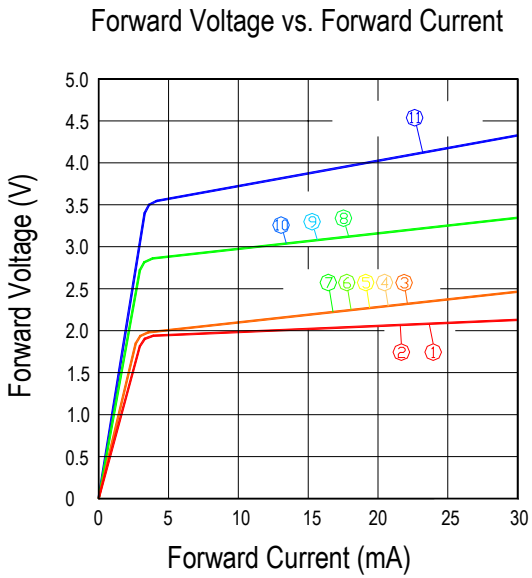
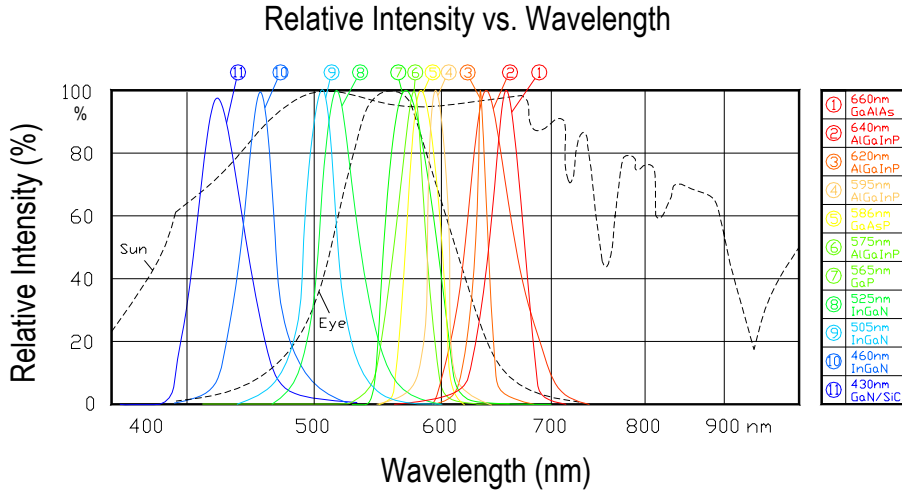
① Absolute Maximum Ratings:

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-2ZB Series	30	120	5	-20~+80	-20~+100

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

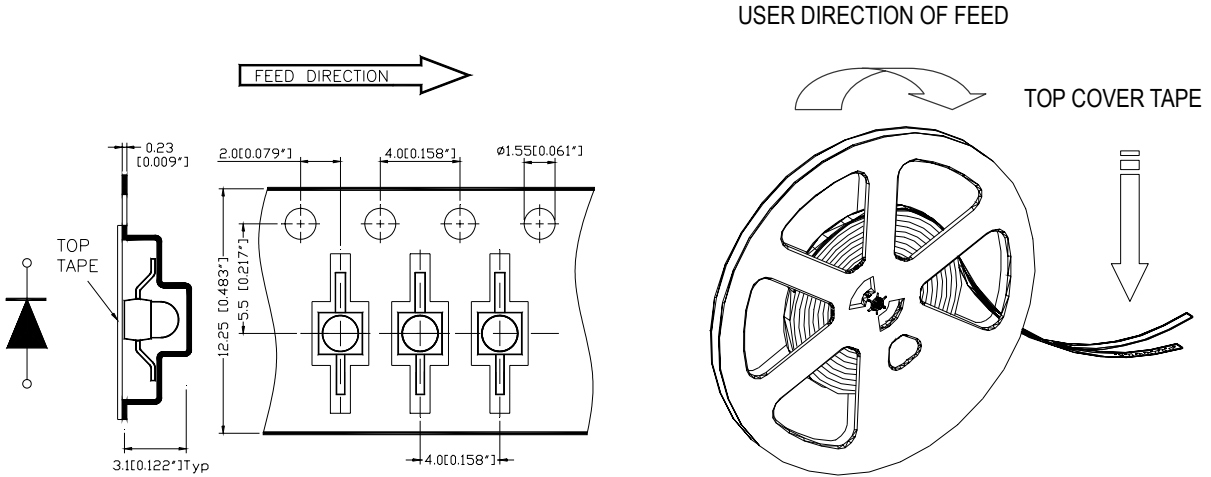
\* Optical Characteristic Curves Of ETG-2ZB

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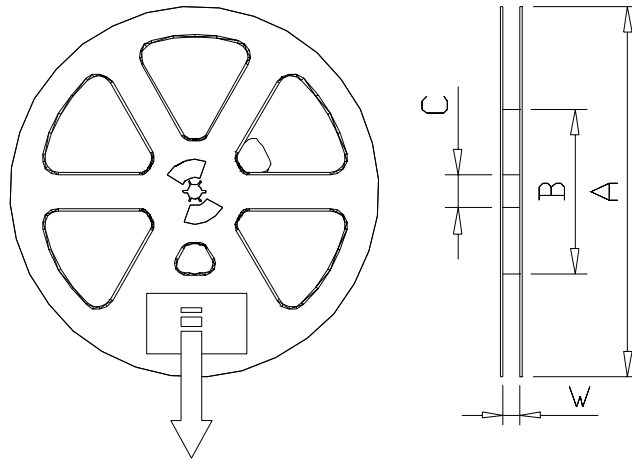


# \* Tape And Reel Of ETG-2ZB Series

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Dimensions per ANSI/EIA Standard RS-481 All dimensions are in Millimeters(inches).	
A	330[13]
B	100[3.94]
C	13 [0.51]
W	12.5[0.50]
Thickness of top cover tape 0.1[0.004"] MAX	



ETG 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. 5000pcs/Reel