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## ◎ SURFACE MOUNT LED LAMPS

Rev: A

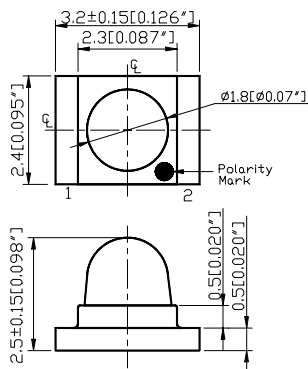
Date: 2002/11/01

ETG-2SM 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-2SM660-20	Red	GaAlAs	1.80	2.30	643	660	25	152	
ETG-2SM640-20	Red	AlGaInP	1.90	2.40	631	640	23	416	
ETG-2SM635-20	Hyper Red	AlGaInP	1.90	2.40	624	635	25	536	
ETG-2SM620-20	Orange	AlGaInP	1.90	2.40	615	620	18	600	
ETG-2SM610-20	Amber	AlGaInP	1.90	2.40	605	610	25	416	
ETG-2SM600-20	Amber	AlGaInP	1.90	2.40	595	600	20	600	
ETG-2SM595-20	Yellow	AlGaInP	2.00	2.50	593	595	32	456	
ETG-2SM588-20	Yellow	GaAsP	2.10	2.50	587	586	37	49	
ETG-2SM575-20	Green	AlGaInP	2.10	2.60	578	575	18	296	
ETG-2SM565-20	Green	GaP	2.25	2.70	572	565	32	136	
ETG-2SM563-20	Green	GaP	2.20	2.70	573	565	30	120	
ETG-2SM525-20	Green	InGaN	3.20	3.80	527	525	40	960	
ETG-2SM505-20	Green	InGaN	3.30	4.00	509	505	37	960	
ETG-2SM460-20	Blue	GaN	3.40	4.00	465	460	68	288	
ETG-2SM430-20	Blue	GaN/SiC	4.00	4.50	465	430	60	64	



### ◎ Package Outline Drawing:

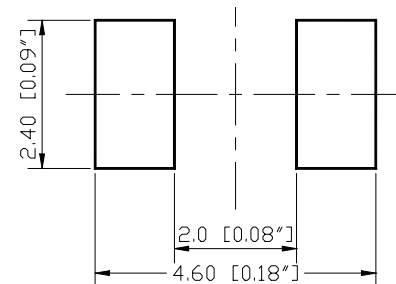


- NOTES:**
1. All dimensions are in millimeters (inches);
  2. Tolerances are ±0.1mm (0.004inch) unless otherwise noted;
  3. Resin color: water clear.

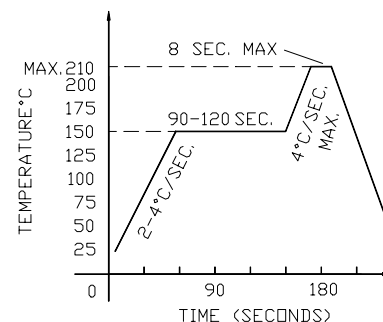
#### \* Soldering iron

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.



### ◎ Absolute Maximum Ratings:

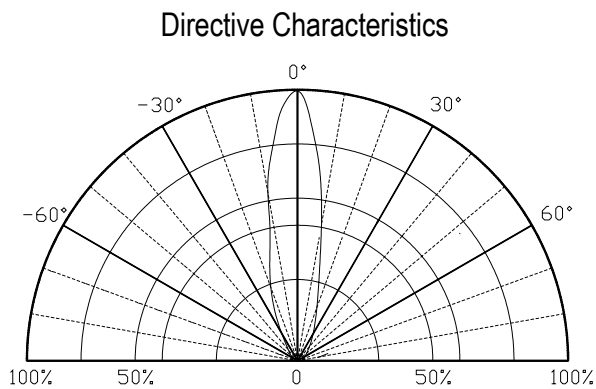
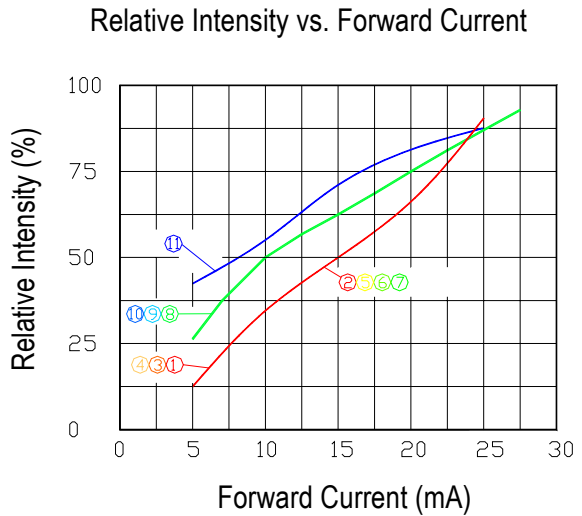
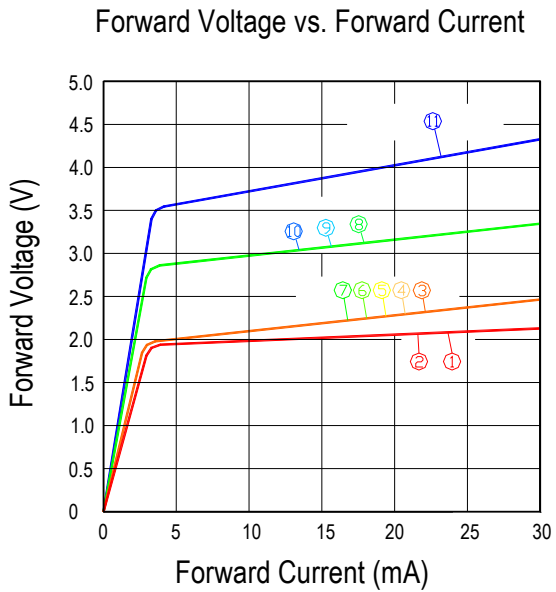
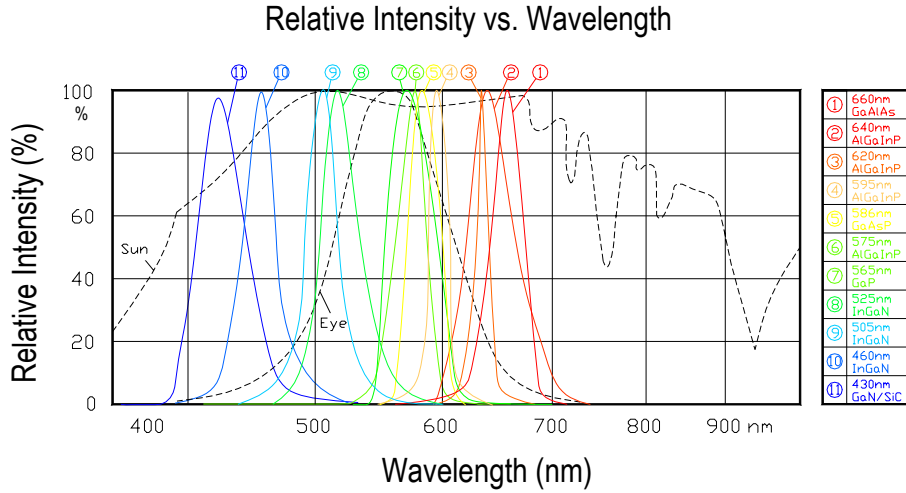
Series	I <sub>F</sub> (mA)	*I <sub>FP</sub> (mA)	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)
ETG-2SM Series	30	120	5	-20~+80	-20~+100

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



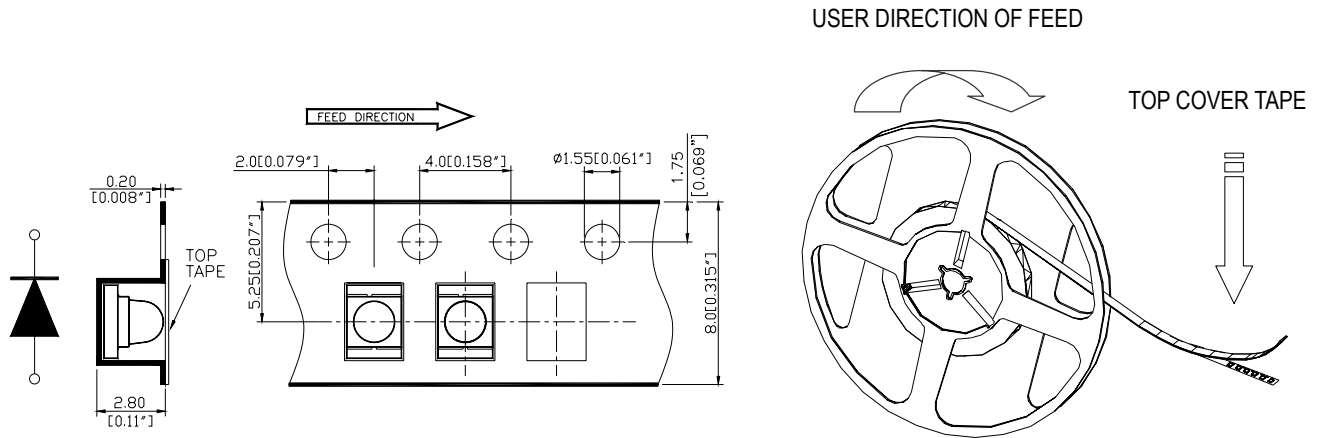
# \*Optical Characteristic Curves 2SM Series

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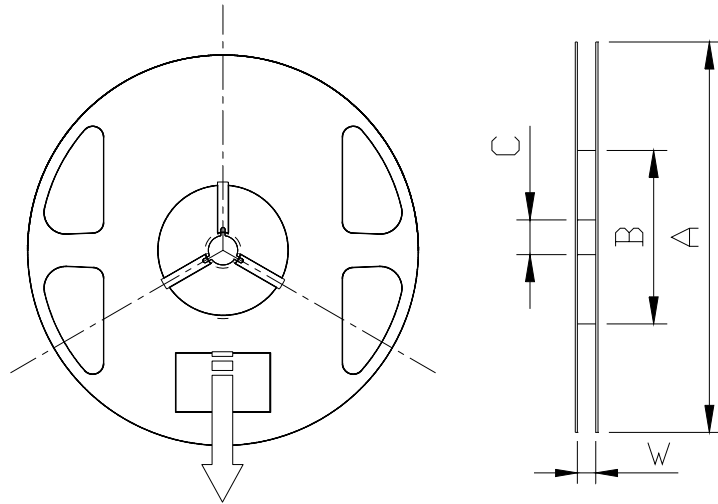


# \* Tape And Reel Of ETG-2 Series

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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, INC	
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. 1500pcs/Reel.