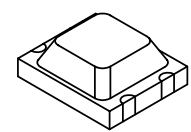
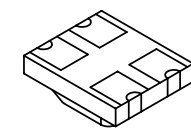


| REV | ECR NO. | DATE |
|-----|--|----------|
| A | 10950 NEW RELEASE | 11/23/94 |
| B | 14472 ADD. POLARITY TO BI-COLOR LED | 4/8/97 |
| C | 15244 KB CHG'D CATHODE POS. AND ADDED SHT. 2 | 10/23/97 |
| D | 20407 RHW REMOVED PART NUMBER CMO11304UR. | 05/04/01 |

| SPECIFICATIONS | | CMO11304MR | CMO11304Y | CMO11304A | CMO11304G | CMO11354MRG | CMO11354AG | CMO11354URG |
|----------------------|---------|--------------|-----------|-----------|-----------|-------------|------------|-------------|
| EMITTED COLOR | CHIP #1 | H.E.R | Y | A | H.E.G | H.E.R | A | UR |
| | CHIP #2 | | | | | H.E.G | H.E.G | H.E.G |
| LENS COLOR | | C | | | | | | |
| DIFFUSED-NONDIFFUSED | | NON-DIFFUSED | | | | | | |

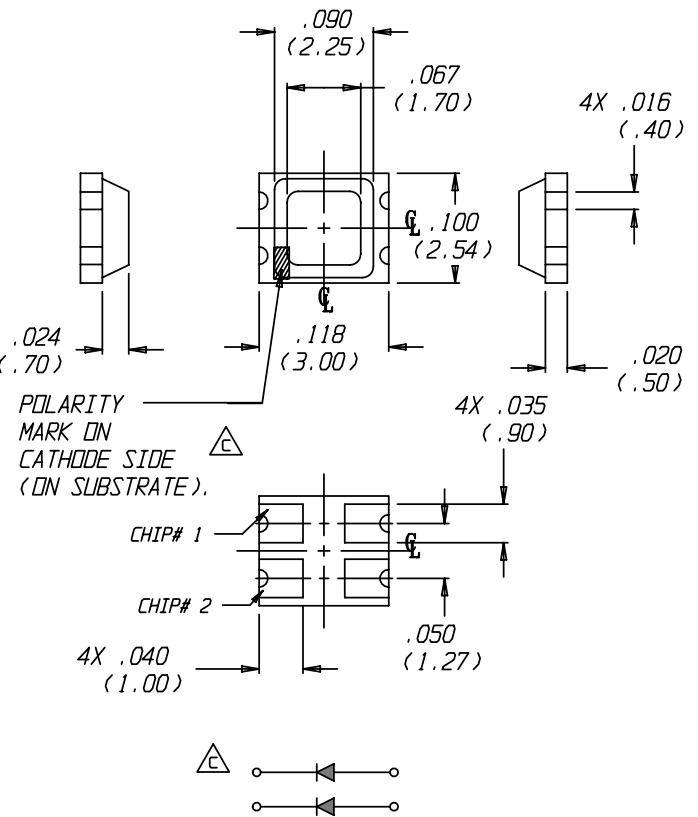
| ABSOLUTE MAXIMUM RATINGS | | | | | | | | | | SYMBOLS | UNITS |
|--|------------|-----|-----|-----|-----|-----|-----|--|--|-----------|---------|
| POWER DISSIPATION | 65 | 70 | 80 | 65 | 65 | 80 | 45 | | | P_d | mW |
| FORWARD CURRENT (AVERAGE) | 25 | 25 | 25 | 25 | 25 | 25 | 15 | | | I_F | mA |
| PEAK FORWARD CURRENT (1 ns @ 10% DUTY CYCLE) | 100 | 100 | 100 | 100 | 100 | 100 | 60 | | | I_{FM} | mA |
| REVERSE VOLTAGE $I_R=100 \mu A$ | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | | | V_R | V |
| STORAGE/OPERATING TEMP. | -25 TO +75 | | | | | | | | | T_{opr} | °C |
| LEAD SOLDER TIME AT 260°C | 10 | | | | | | | | | | SECONDS |

| ELECTRO-OPTICAL CHARACTERISTICS | | | | | | | | | | | SYMBOLS | UNITS |
|---------------------------------|------------|-----|-----|------|------|------|-----|-----|-----|-------------|---------|-------|
| FORWARD VOLTAGE | (IF=20 mA) | TYP | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 1.7 | | V_F | V |
| | | MAX | 2.6 | 2.8 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 | | | |
| | (IF=10 mA) | TYP | | | | | | | | | | |
| | | MAX | | | | | | | | | | |
| LUMINOUS INTENSITY | (IF=20 mA) | MIN | 2.6 | 5.0 | 5.0 | 11.0 | 1.6 | 3.0 | 4.0 | | I_v | ncd |
| | | TYP | 7.0 | 14.0 | 14.0 | 22.0 | 4.0 | 8.0 | 8.0 | | | |
| | (IF=10 mA) | MIN | | | | | | | | | | |
| | | TYP | | | | | | | | | | |
| PEAK WAVELENGTH (IF=20 mA) | | 630 | 585 | 610 | 565 | 630 | 610 | 660 | | λ_p | nm | |
| VIEW ANGLE | | 100 | | | | | | | | | | deg |



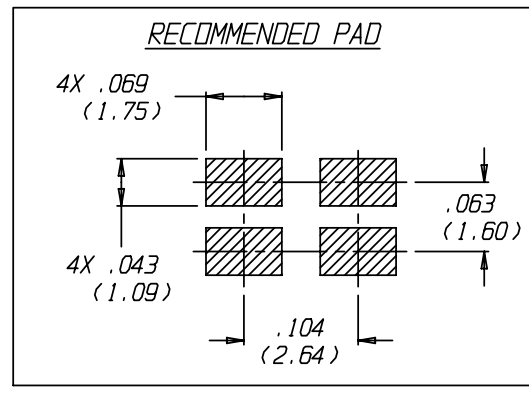
FOR REF. ONLY

DIST.
V



IDI COLOR CODE

| | |
|------|-----------------|
| D | DIFFUSED |
| N | NON-DIFFUSED |
| U | ULTRA |
| C | CLEAR |
| R | RED |
| A | AMBER |
| G | GREEN |
| Y | YELLOW |
| H.E. | HIGH EFFICIENCY |



DO NOT SCALE

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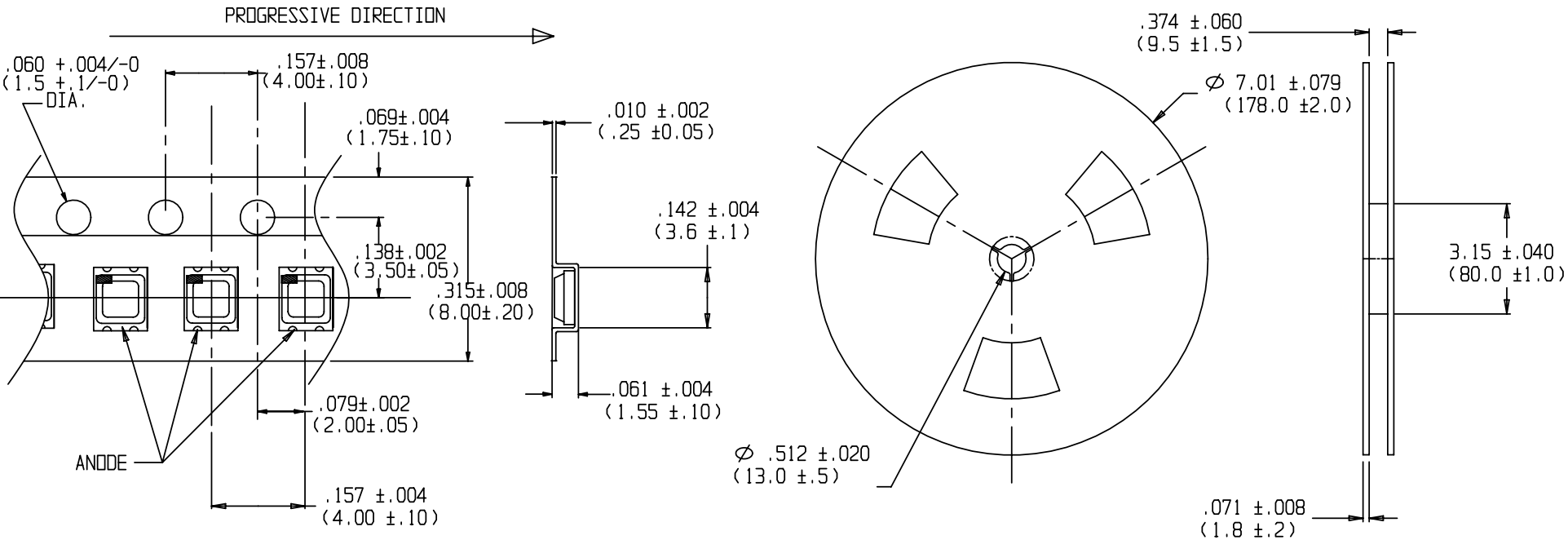
ALL DIM'S. ARE IN INCHES (mm).

| | | | | |
|---------------------------------------|----------------------------|---|-------------------------------|------------|
| PART NO. | SEE TABLE | TITLE | SURFACE MOUNT LED (DUAL CHIP) | |
| MODEL NO. | | CHICAGO MINIATURE LAMP INC. 147 CENTRAL AVE. HACKENSACK, NJ 07601 | | |
| MOLD NO. | | | | |
| MATERIAL: | | DRAWN | JEANNETTE R. | SCALE: 8:1 |
| FINISH: | | CHECKED | | B12512 |
| TOLERANCE UNLESS OTHERWISE SPECIFIED: | | ENG. APPRV | | |
| FRACTION | 1/64 | | | |
| DECIMAL | .xx +/- .010 .xxx +/- .005 | | | |
| MILLIMETER | .x .3nn .xx .13nn | | | |
| ANGLE | 1 deg. | | | |

SHEET 1 OF 2

SHEET 1 OF 2

| REV | ECR NO./DESCRIPTION | DATE |
|-----|---------------------|------|
| | SEE SHEET ONE | |




QUANTITY 3000 PIECES PER REEL

DIST.
V/S

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (mm).
 2. TAPE AND REEL DIMS PER EIA 481-1 (8 + 12mm).

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| | | |
|---------------------------------------|---|---|
| PART NO. SEE TABLE | TITLE SURFACE MOUNT LED | |
| MODEL NO. |  CHICAGO MINIATURE LAMP INC. 147 CENTRAL AVE. HACKENSACK, NJ 07601 | |
| MOLD NO. | | |
| MATERIAL: | DRAWN K. BARRETT | SCALE: NTS |
| FINISH: | CHECKED | B12512 REV D |
| TOLERANCE UNLESS OTHERWISE SPECIFIED: | ENG. APPRV | |
| FRACTION ± 1/64 | | |
| INCHES .xx ±.010 (0.25) | | |
| .xxx ±.010 (0.25) | | |
| ANGLE ± 1 deg. | | |

ON 5MO

SHEET 2 OF 2