

Technical Data Sheet

7383/G1C3-ATVA/X/MS**Features**

- Popular T-1 3/4 diameter package.
- Choice of various viewing angles.
- Available on tape and reel.
- Reliable and robust.
- ESD-withstand voltage: up to 4KV.
- The product itself will remain within RoHS compliant version.
- UV resistant epoxy

**Descriptions**

- The series is specially designed for applications requiring higher brightness.
- The LED lamps are available with different colors, intensities, epoxy colors, etc.
- Superior performance in outdoor environment

Applications

- Color Graphic Signs
- Message boards
- Variable message signs (VMS)
- Commercial outdoor advertising

Device Selection Guide

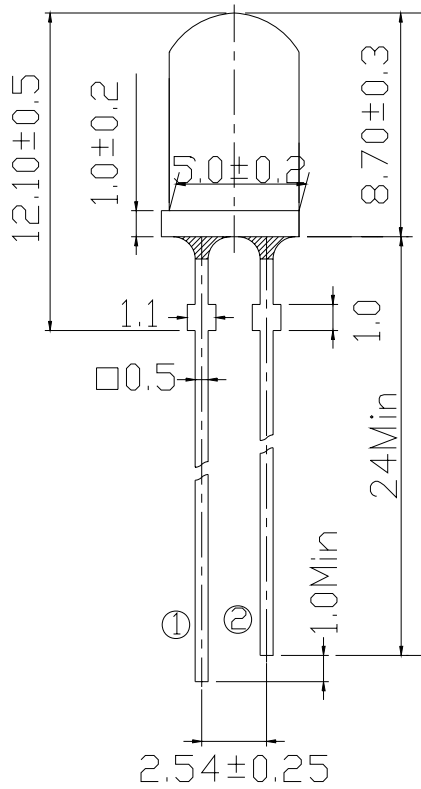
| LED Part No. | Chip Mterial | Emitted Color | Lens Color | Stopper |
|---------------------|---------------------|----------------------|-------------------|----------------|
| 7383/G1C3-ATVA/MS | InGaN | Super Green | Water Clear | No |
| 7383/G1C3-ATVA/P/MS | InGaN | Super Green | Water Clear | Yes |

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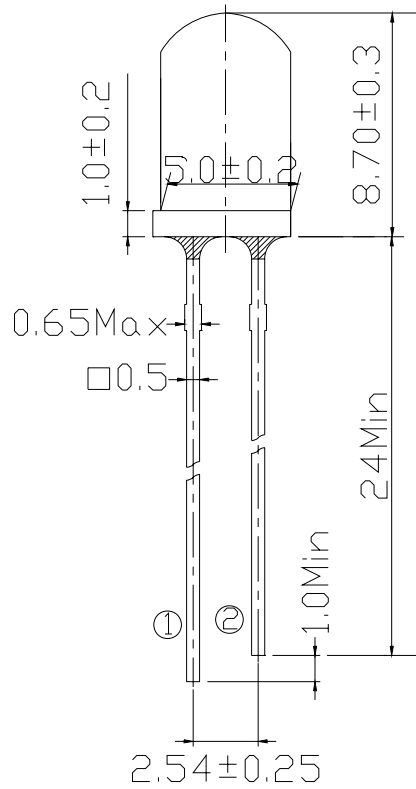
7383/G1C3-ATVA/X/MS

Package Dimensions

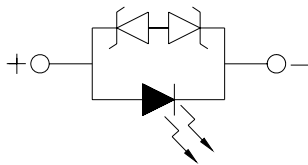
Stopper type



No Stopper type



① Anode
② Cathode



Notes:

- All dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Lead spacing is measured where the lead emerges from the package.
- Protruded resin under flange is 1.5mm Max LED.



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7383/G1C3-ATVA/X/MS**Absolute Maximum Ratings (Ta=25°C)**

| Parameter | Symbol | Rating | Units |
|--------------------------|------------------|------------|-------|
| Forward Current | I _F | 30 | mA |
| Pulse Forward Current *1 | I _{FP} | 100 | mA |
| Operating Temperature | T _{opr} | -40 ~ +85 | °C |
| Storage Temperature | T _{stg} | -40 ~ +100 | °C |
| Electrostatic Discharge | ESD | 4K | V |
| Soldering Temperature *2 | T _{sol} | 260 ±5 | °C |
| Power Dissipation | P _d | 120 | mW |
| Zener Reverse Current | I _Z | 100 | mA |
| Reverse Voltage | V _R | 5 | V |

Notes: *1:I_{FP} Conditions--Pulse Width ≤ 10msec and Duty ≤ 1/10.

*2:Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Units |
|------------------------------|----------------|----------------------|------|------|-------|-------|
| Forward Voltage | V _F | I _F =20mA | 2.8 | -- | 3.6 | V |
| Zener Reverse Voltage | V _Z | I _Z =5mA | 5.2 | -- | -- | V |
| Luminous Intensity | I _v | I _F =20mA | 7150 | -- | 14250 | mcd |
| Viewing Angle | 2θ 1/2 | I _F =20mA | -- | 30 | -- | deg |
| Peak Wavelength | λ _p | I _F =20mA | ---- | 518 | ---- | nm |
| Dominant Wavelength | λ _d | I _F =20mA | 524 | 528 | 532 | nm |
| Spectrum Radiation Bandwidth | Δλ | I _F =20mA | -- | 35 | -- | nm |
| Reverse Current | I _R | V _R =5V | -- | -- | 50 | μA |

**Technical Data Sheet****7383/G1C3-ATVA/X/MS****Rank Combination ($I_F=20mA$)**

| Rank | T | U | V |
|--------------------|-----------|------------|-------------|
| Luminous Intensity | 7150~9000 | 9000~11250 | 11250~14250 |

*Measurement Uncertainty of Luminous Intensity: $\pm 15\%$

Unit: :mcd

| Rank | 0 | 1 | 2 | 3 |
|-----------------|---------|---------|---------|---------|
| Forward Voltage | 2.8~3.0 | 3.0~3.2 | 3.2~3.4 | 3.4~3.6 |

*Measurement Uncertainty of Forward Voltage: $\pm 0.1V$

Unit:V

| Rank | 1 | 2 |
|---------------------|---------|---------|
| Dominant Wavelength | 524~528 | 528~532 |

*Measurement Uncertainty of Dominant Wavelength $\pm 1.0nm$

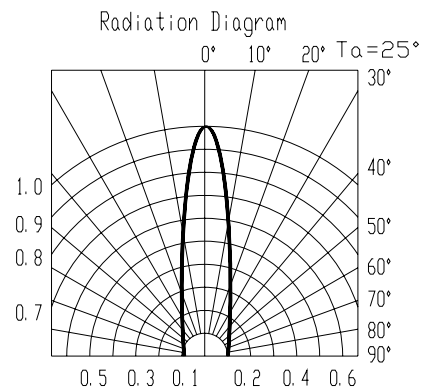
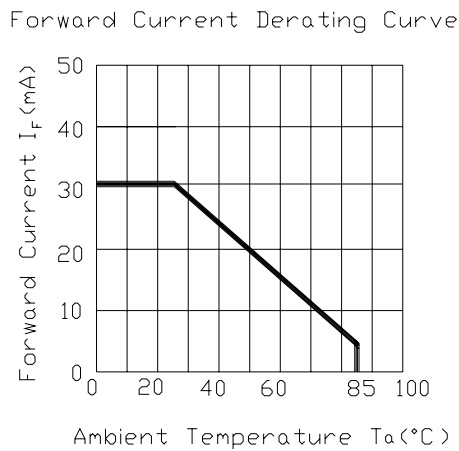
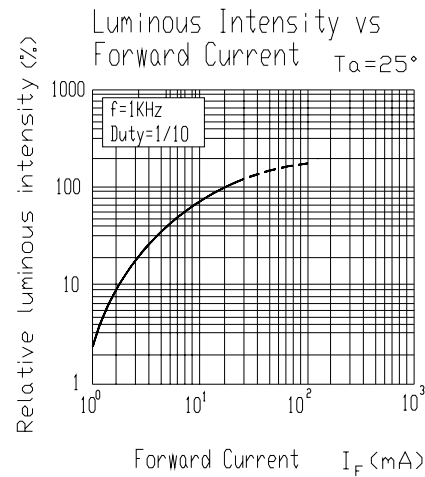
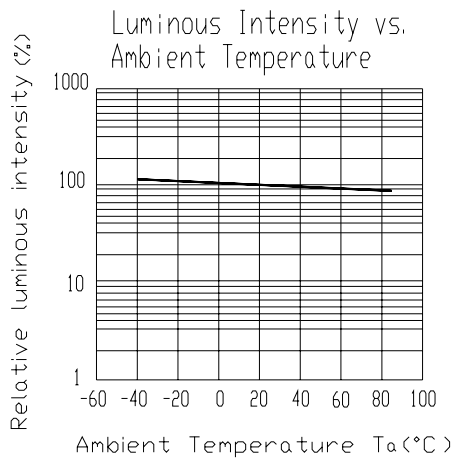
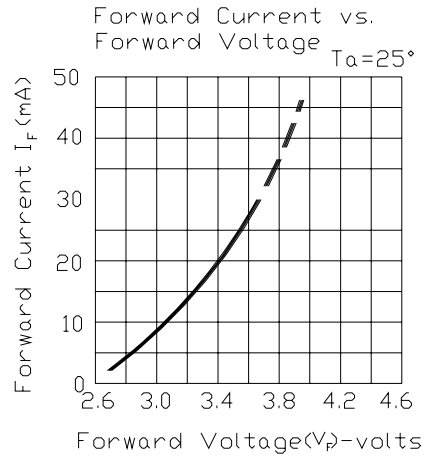
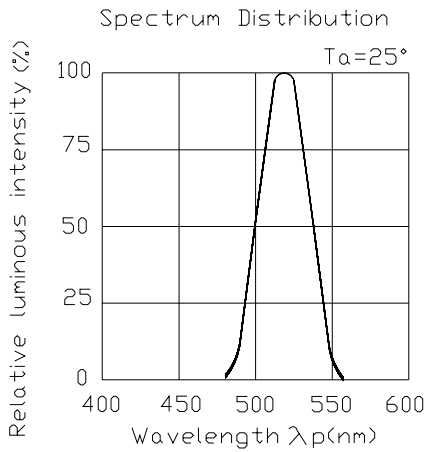
Unit:nm

*The quantity ratio of the ranks is decided by EVERLIGHT.

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Typical Electro-Optical Characteristics Curves





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Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box
2.10Boxes/1Carton

Label Form Specification

| | |
|---|---|
| EVERLIGHT | |
| CPN: | |
| P/N: | |
|  |  |
| 7383/G1C3-ATVA/X/MS | |
| QTY : | CAT: |
|  | HUE: |
| LOT NO : | REF: |
|  | |
| MADE IN TAIWAN | |

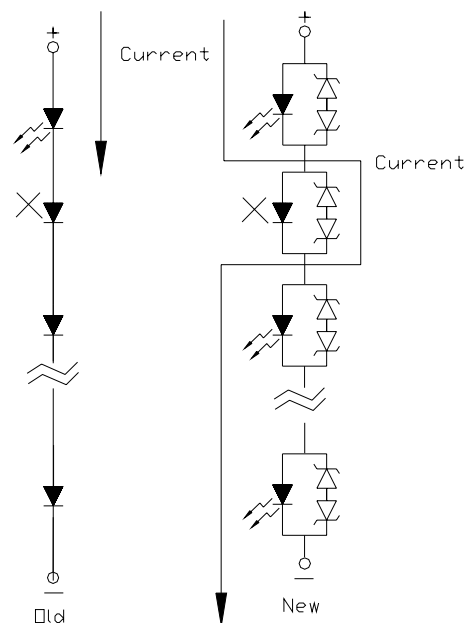
CPN: Customer's Production Number
P/N : Production Number
QTY: Packing Quantity
CAT: Ranks of Luminous Intensity and Forward Voltage
HUE: Ranks of Dominant Wavelength
REF: Reference
LOT No: Lot Number
MADE IN TAIWAN: Production Place

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Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.
4. Below the zener reference voltage V_z , all the current flows through LED and as the voltage rises to V_z , the zener diode "breakdown." If the voltage tries to rise above V_z current flows through the zener branch to keep the voltage at exactly V_z .
5. When the LED is connected using serial circuit, if either piece of LED is no light up but current can't flow through causing others to light down. In new design, the LED is parallel with zener diode. if either piece of LED is no light up but current can flow through causing others to light up.





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6. Soldering Condition

Careful attention should be paid during soldering. When soldering, leave more than 3mm from solder joint to case, and soldering beyond the base of the tie bar is recommended.

Avoiding applying any stress to the lead frame while the LEDs are at high temperature particularly when soldering.

Recommended soldering conditions:

| Hand Soldering | | DIP Soldering | |
|----------------------|-------------------------------------|---------------|--------------------------|
| Temp. at tip of iron | 400°C Max. (30W Max.) | Preheat temp. | 100°C Max. (60 sec Max.) |
| Soldering time | 3 sec Max. | Bath temp. | 265 Max. |
| Distance | 3mm Min.(From solder joint to case) | Bath time. | 5 sec Max. |
| | | Distance | 3mm Min. |

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