



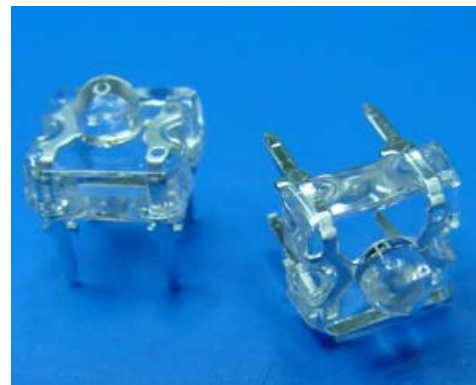
Technical Data Sheet

POWER LED

38-01/A2C-ARTC

Features

- . High Flux Output.
- . Designed for High Current Operation.
- . Low Thermal Resistance.
- . Low Profile.
- . Packaged in Tubes for Use with Automatic Insertion Equipment.
- . The product itself will remain within RoHS compliant version.



Descriptions

This revolutionary package design allows the light designer to reduce the number of LEDs required and provide a more uniform and unique illuminated appearance than with other LED solutions. This is possible through the efficient optical package design and high-current capabilities.

The low profile package can be easily coupled with reflectors or lenses to efficiently distribute light and provide the desired light appearance.

Applications

- . Automotive Lighting
- . Electronic Signs and Signals
- . Special Lighting application

Device Selection Guide

PART NO.	Chip		Lens Color
	Material	Emitted Color	
38-01/A2C-ARTC	AlGaInP	Super Sunset Orange	Water Clear

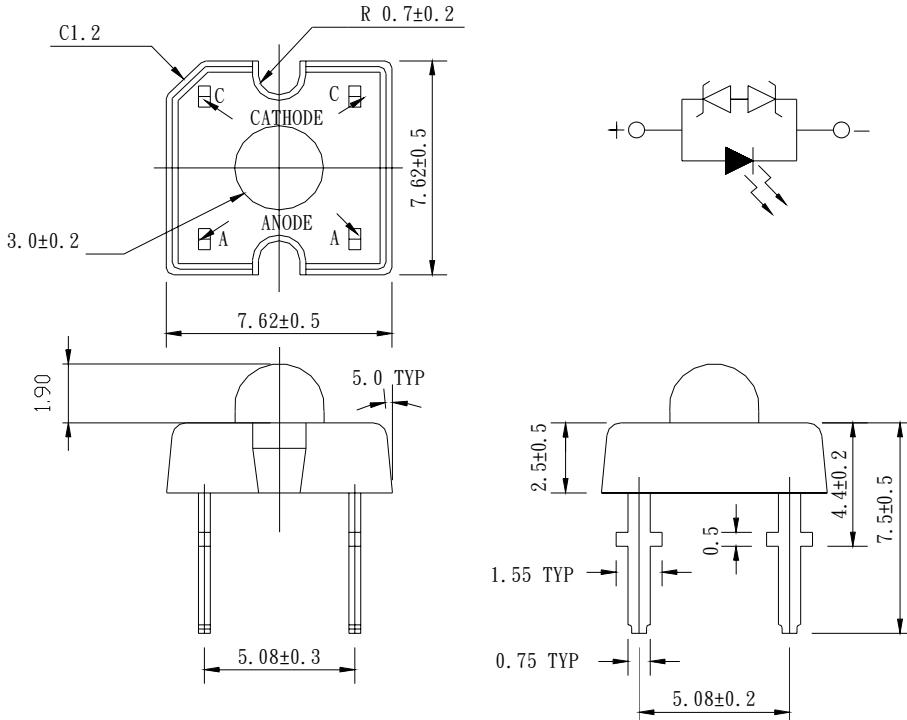


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Package Dimensions



- Notes:**
1. All dimensions are in millimeters
 2. An epoxy meniscus may extend about 1.5mm(0.059") down the leads
 3. Tolerances unless dimensions ±0.25mm

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Units
Continuous Forward Current	I _F	70	mA
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _{FP}	160	mA
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-40 ~ +100	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature(T=5 sec)	T _{sol}	260 ± 5	°C
LED Junction Temperature	T _j	125	°C
Power Dissipation	P _d	220	mW
Electrostatic Discharge	ESD	4000	V



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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Condition	Unit
Total Flux	Φ_v	4000	5650	----	I _F =70mA	mlm
Viewing Angle	2θ 1/2	----	40	----	I _F =70mA	deg
Peak Wavelength	λ _p	----	621	----	I _F =20mA	nm
Dominant Wavelength	λ _d	----	615	----	I _F =20mA	nm
Spectrum Radiation Bandwidth	Δλ	----	18	----	I _F =20mA	nm
Forward Voltage	V _F	----	2.6	3.1	I _F =70mA	V
Zener Reverse Voltage	V _Z	5.8	----	----	I _Z =5mA	V
Reverse Current	I _R	----	----	10	V _R =5V	uA

Rank

38-01/A2C-ARTC

□ □ □
(1) (2) (3)

(1) V _F (V)			(2) λ _d (nm)			(3) Φ _v (mlm)		
Bin	Min	Max	Bin	Min	Max	Bin	Min	Max
3	2.10	2.30	6	610.0	613.5	R	4500	5650
4	2.30	2.50	7	613.5	617.0	S	5650	7150
5	2.50	2.70	8	617.0	620.0	T	7150	9000
6	2.70	2.90						
7	2.90	3.10						

*Measurement Uncertainty of Forward Voltage : ±0.1V

*Measurement Uncertainty of Luminous Intensity: ±15%



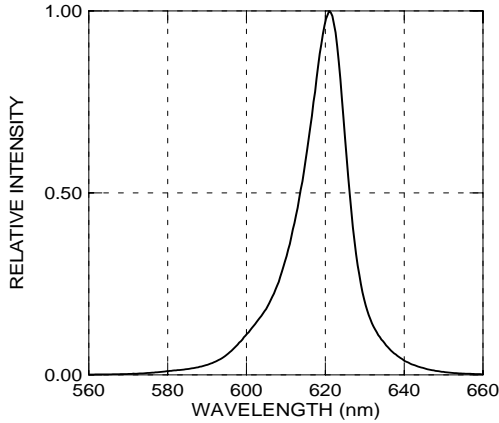
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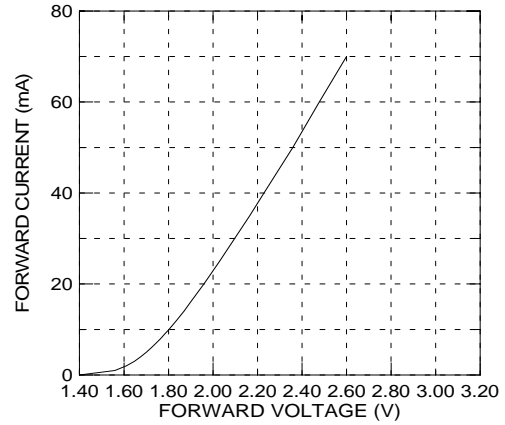
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Typical Electro-Optical Characteristics Curves

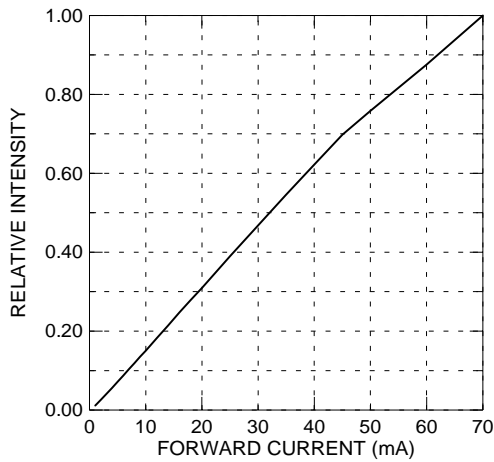
Relative Intensity vs. Wavelength



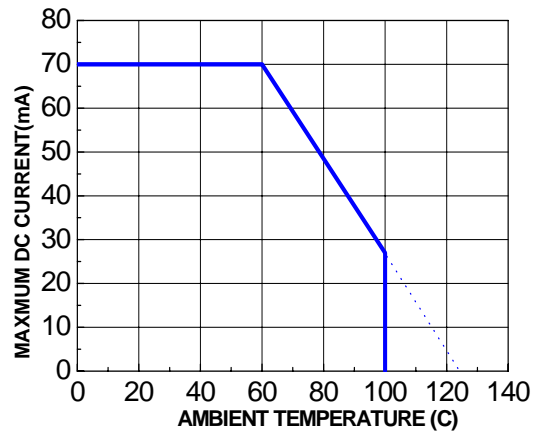
Forward Current vs. Forward Voltage



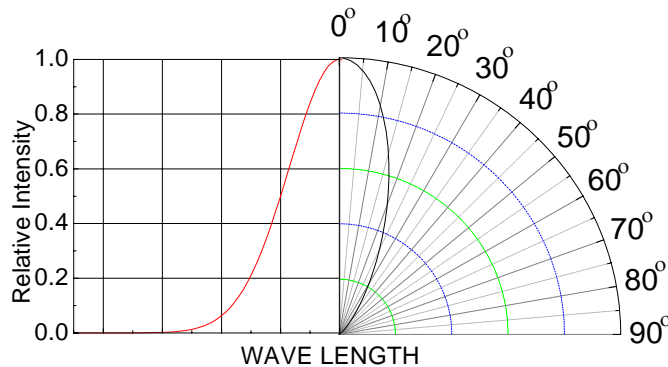
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temp.



Relative Intensity vs. Angle








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Label Form Specification

EVERLIGHT	
CPN:	
P/N:	
	
38-01/A2C-ARTC	RoHS
QTY :	CAT:
	
LOT NO :	HUE:
	REF:
	
MADE IN TAIWAN	

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks of Flux and Forward Voltage

HUE: Ranks of Wavelength

REF: Reference

LOT No: Lot Number

MADE IN TAIWAN: Production Place



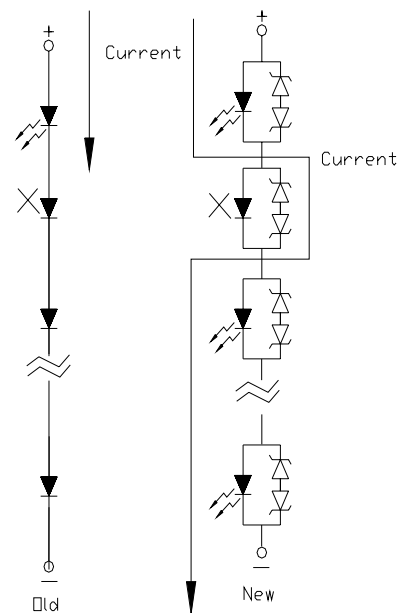
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Notes

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.





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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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