EVERLIGHT

EVERLIGHT ELECTRONICS CO., LTD.

Technical Data Sheet

Preliminary

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.

Descriptions

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

Applications

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

Device Selection Guide

LED Part No.	Chip Material	Emitted Color	Lens Color	Stopper
7383/V7C3-ARTA/MS	InGaN	Bluish Green	Water Clear	No
7383/V7C3-ARTA/P/MS	InGaN	Bluish Green	Water Clear	Yes

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7383/V7C3-ARTA/X/MS



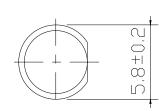
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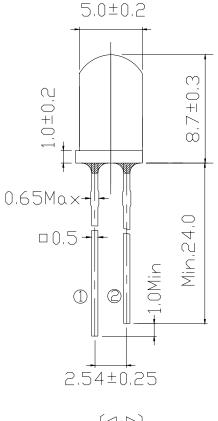
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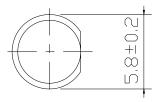
Package Dimensions

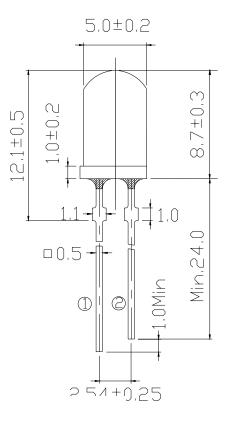


No Stopper type



Stopper type





① Anode ②Cathode

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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Absolute Maximum Ratings (Ta=25°C)					
Parameter	Symbol	Rating	Units		
Forward Current	$I_{\rm F}$	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	Iz	100	mA		
Reverse Voltage	VR	5	V		

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

*2:Soldering time \leq 5 seconds.

Parameter	Symbol	Condition	Min.	Тур.	Max.	Units
Forward Voltage	V _F	I _F =20mA	2.8	3.2	3.6	V
Zener Reverse Voltage	Vz	Iz=5mA	5.2			V
Luminous Intensity	I _V	I _F =20mA	4500	6300	9000	mcd
Viewing Angle	2 0 1/2	I _F =20mA		30		deg
Peak Wavelength	λp	I _F =20mA		502		nm
Dominant Wavelength	λd	I _F =20mA	498	505	513	nm
Spectrum Radiation Bandwidth	Δλ	I _F =20mA		30		nm
Reverse Current	I _R	V _R =5V			50	μA

Electro-Optical Characteristics (Ta=25°C)

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Rank Combination (I _F =20mA)						
Rank	R		S		Т	
Luminous Intensity	4500~5650		5650~7150		7150~9000	
*Measurement Uncertainty	nty of Luminous Intensity: ±15% Unit: :mc					Unit: :mcd
Rank	0		1	2		3
Forward Voltage	2.8~3.0		3.0~3.2 3.2~3.4		1	3.4~3.6
*Measurement Uncertainty of Forward Voltage: ±0.1V Unit:V					Unit:V	
Rank	2		3		4	
Dominant Wavelength	498~503	503~508			508~513	
*Measurement Uncertainty of Dominant Wavelength ±1.0nm				Unit:nm		

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

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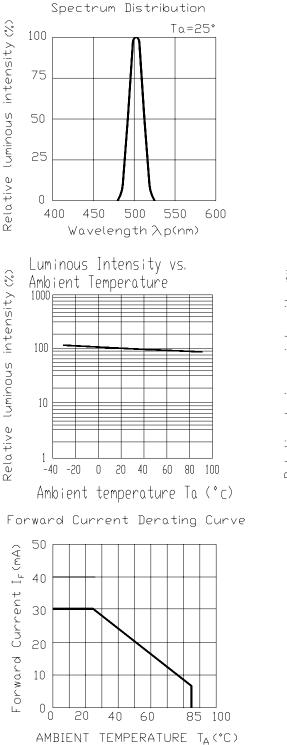
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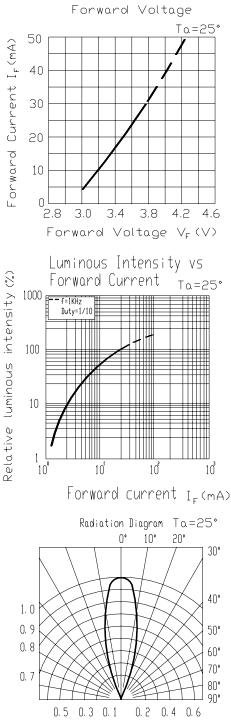
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Typical Electro-Optical Characteristics Curves





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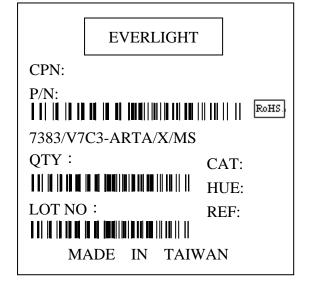
7383/V7C3-ARTA/X/MS

Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

Label Form Specification



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 EVERLIGHT E

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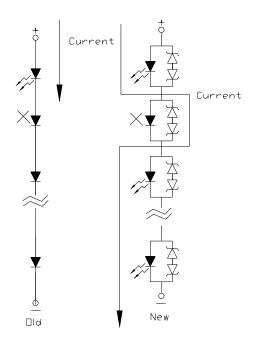
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7383/V7C3-ARTA/X/MS

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 Vz, all the current flows through LED and as the voltage rises to Vz, the zener diode "breakdown." If the voltage tries to rise above Vz current flows through the zener branch to keep the voltage at exactly Vz.
- 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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7383/V7C3-ARTA/X/MS

6. Soldering Condition

Careful attention should be paid during soldering. When soldering, leave more then 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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