

3.0mm Very Wide Angle Type LED Lamps

PART NO. :

494VGT

ECN :

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1/4**■ Features :**

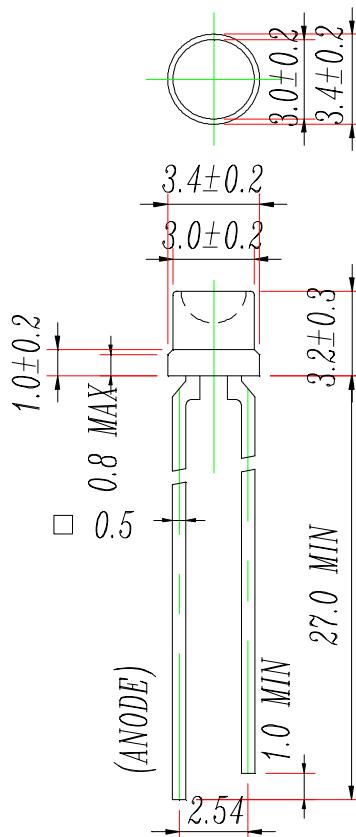
- Choice of various viewing angles
- Available on tape and reel.
- Reliable and robust

■ Descriptions :

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

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

■ Package Dimensions:**■ Notes :**

1. All dimensions are in millimeters.
2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
3. Tolerances unless Dimension ± 0.25 mm.

PART NO.	Chip		Lens Color
	Material	Emitted Color	
494VGT	GaP	Green	Green Trans

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PART NO. : 494VGT ECN : Page: 2/4■ Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Forward Current	I_F	30	mA
Operating Temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260 ± 5	$^\circ\text{C}$
Power Dissipation	P_d	100	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	$I_F(\text{Peak})$	160	mA
Reverse Voltage	V_R	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	10.0	16.0	/	mcd	$I_F = 20 \text{ mA}$
Viewing Angle	$2\theta_{1/2}$	/	120	/	deg	$I_F = 20 \text{ mA}$
Peak Wavelength	λ_p	/	570	/	nm	$I_F = 20 \text{ mA}$
Dominant Wavelength	λ_d	/	571	/	nm	$I_F = 20 \text{ mA}$
Spectrum Radiation Bandwidth	$\Delta\lambda$	/	30	/	nm	$I_F = 20 \text{ mA}$
Forward Voltage	V_F	1.7	2.1	2.4	V	$I_F = 20 \text{ mA}$
Reverse Current	I_R	/	/	10	μA	$V_R = 5 \text{ V}$

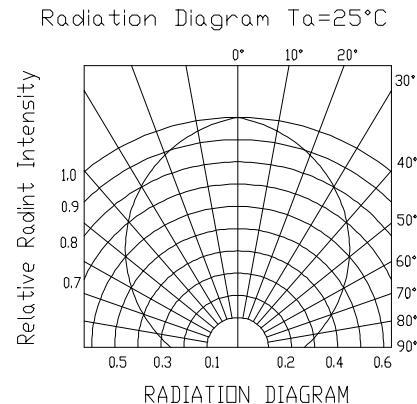
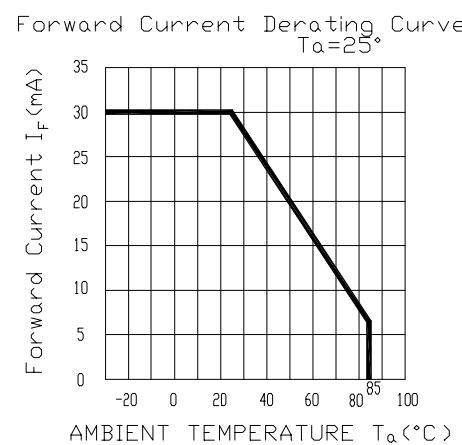
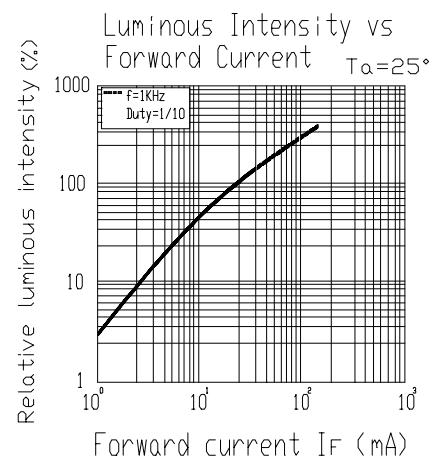
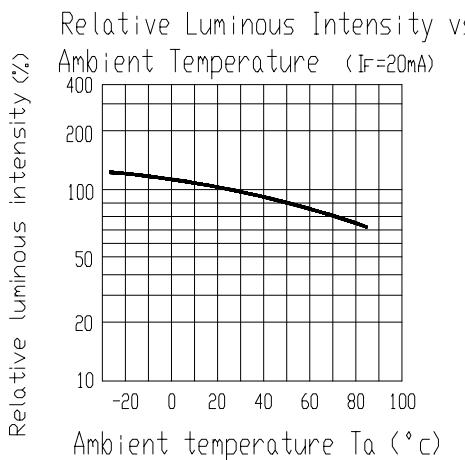
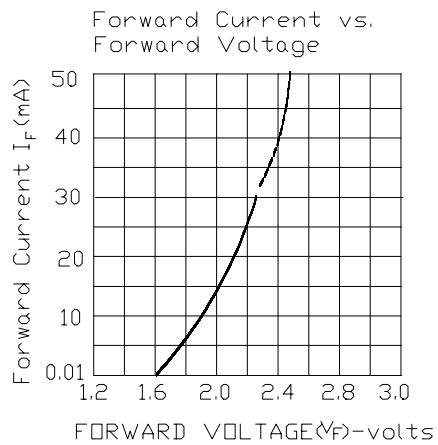
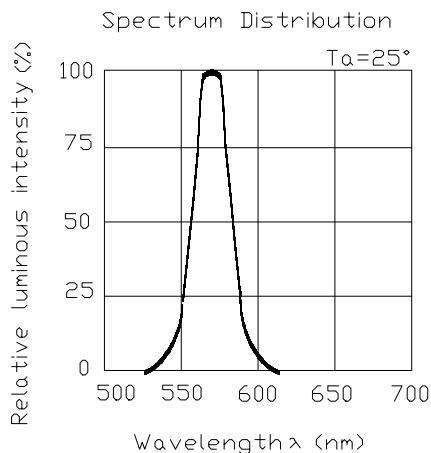


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■ Typical Electro-Optical Characteristic Curves:

(VGT)





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-049-012 REV.: 1.1

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■ Reliability test items and conditions:

No	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : $+85^{\circ}\text{C}$ 30min ↓ 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : $+100^{\circ}\text{C}$ 5min ↓ 10 sec L : -10°C 5min	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	IF = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	$85^{\circ}\text{C} / 85\% \text{ RH}$	1000 HRS	76 PCS	0/1