

VAOL-5701DE4

T-1 3/4 (5mm) through-hole LED with high intensity light output



Green T-1 3/4 (5mm) LED with water transparent lens

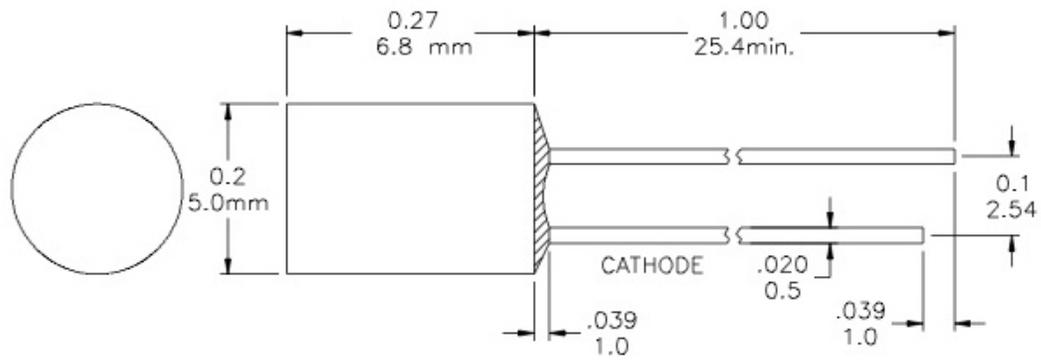
Application

- Automotive
- Front Panel Indicator
- Residential and Landscape Lighting
- Railway
- Commercial Outdoor Sign Board
- Indoor and Outdoor Indicating
- Electronic Devices
- Storage Servers
- Dot-Matrix Module

Key Features

- Color: Green
- LED Size 5mm T-1 3/4
- Low power consumption
- I.C. compatible
- GaAsP/GaP material technology
- Water Transparent Lens
- Viewing Angle: 100°
- MSL rating: 2
- RoHS and REACH Compliant

Product Dimensions



Notes:

1. All dimensions are in inches [millimeters]
2. Tolerance is ± 0.01 " [0.25mm] unless otherwise noted
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

Product Specifications

Absolute Maximum Ratings (Ta=25°C)

Symbol	Parameter	Max	Unit
PD	Power Dissipation	100	mW
VR	Reverse Voltage	5	V
IAF	Average Forward Current	30	mA
IPF	Peak Forward Current (Duty=0.1, 1kHz)	100	mA
-	Derating Linear Form 25°C	0.4	mA/°C
Topr	Operating Temperature Range	-40 to +80	°C
Tstg	Storage Temperature Range	-40 to +100	°C
Lead Soldering Temperature [1.6mm(0.063inch)From Body] 260°C For 5 Seconds.			

Electrical / Optical Characteristics and Curves at Ta=25°C

Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
VF	Forward Voltage	IF= 20 mA		2.0	2.4	V
IR	Reverse Current	VR=5 V			100	µA
Δθ	Half Intensity Angle	IF= 20 mA		100		Deg.
IV	Luminous Intensity	IF= 20 mA		100		mcd.
λd	Dominant Wavelength	IF= 20 mA		570		nm

Product Specifications

Electrical Characteristics at (Ta=25°C)

Symbol	Iv		V _F		λD	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF=20mA		IF=20mA		IF=20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN 9	90~125	C	1.9~2.0	G9	569~571
			D	2.0~2.1	G10	571~573
			E	2.1~2.2	G11	573~575
			F	2.2~2.3		
			G	2.3~2.4		

Intensity: Tolerance of minimum and maximum = ± 15%

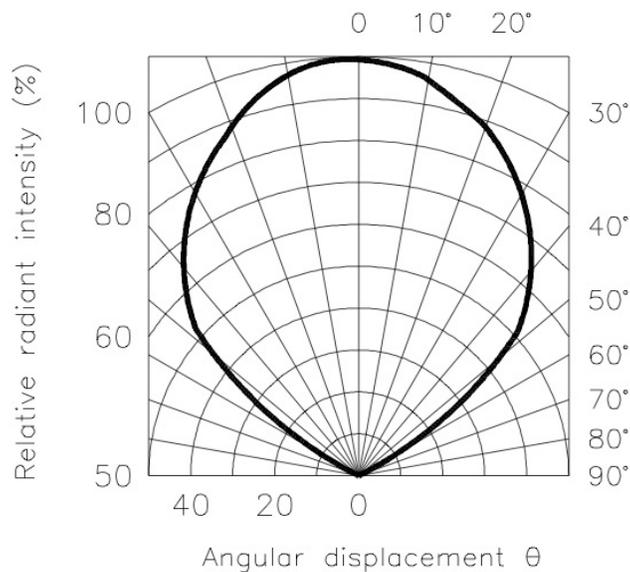
Vf: Tolerance of minimum and maximum = ± 0.05v

Notes:

1. Static electricity and surge damages the LED. It is recommend to use a anti-static wrist band or anti-electrostatic glove when handing the LEDs. All devices, equipment and machinery must be properly grounded.
2. Specific binning requirements – Contact VCC

Radiation Diagram

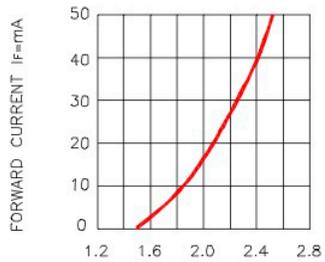
IF=20 mA 50% Power Angle Angle =100°



Product Specifications

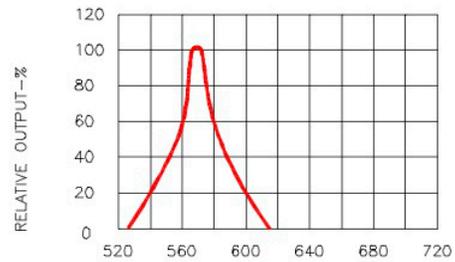
Typical Electro-optical Characteristics Curves (25°C Free Air Temperature Unless Otherwise Specified)

Green



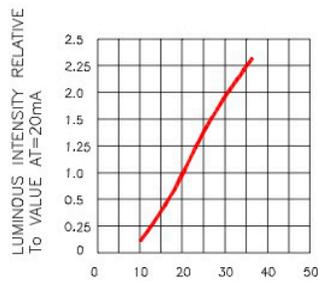
FORWARD VOLTAGE(Vf)—VOLTS

Fig.1 FORWARD CURRENT VS FORWARD VOLTAGE



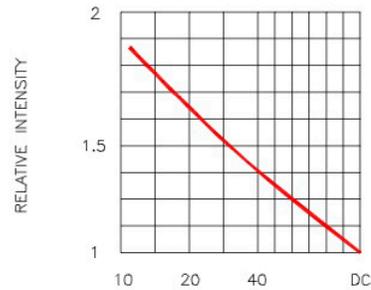
WAVELENGTH(λ)—nm

Fig.2 SPECTRAL RESPONSE



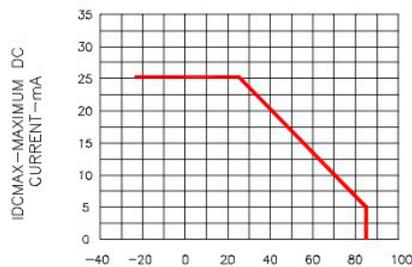
IF—FORWARD CURRENT—mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



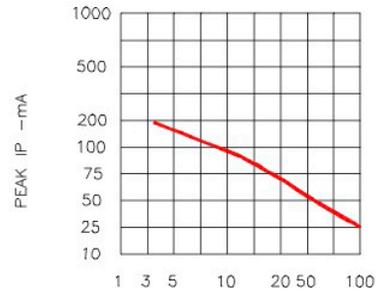
DUTY CYCLE% PER SEGMENT (AVERAGE If=10mA)

Fig.4 LUMINOUS INTENSITY VS. DUTY CYCLE



Ta AMBIENT TEMPERATURE °C

Fig. 5 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE



DUTY CYCLE%

Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)

Compliances and Approvals

