

T-1 3/4(5mm) High Intensity LEDs

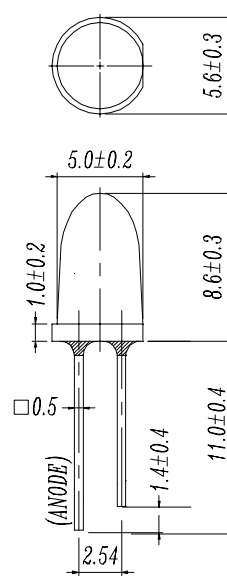
■ Features :

- Popular T-1 3/4 diameter package.
- Choice of various viewing angles.
- Available on tape and reel.
- Reliable and robust.

■ Descriptions :

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

■ Package Dimensions:



■ Applications :

- TV Set
- Monitor
- Telephone
- Computer

■ Notes:

- 1.All dimensions are in millimeter.
- 2.An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.

PART NO.	Chip		Lens Color
	Material	Emitted Color	
383URC-1/SN/F180	GaAlAs	Super Red	Water Clear

B971101.971039

Device Number : DLE-038-085 REV: 1.3

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■ Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

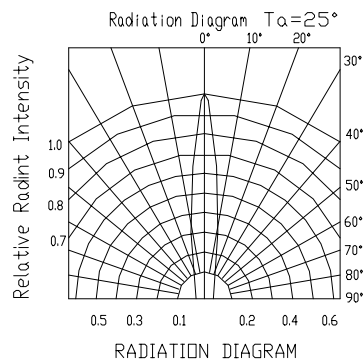
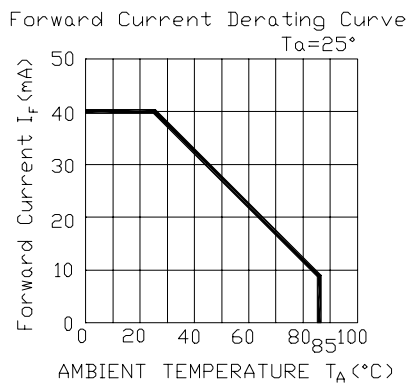
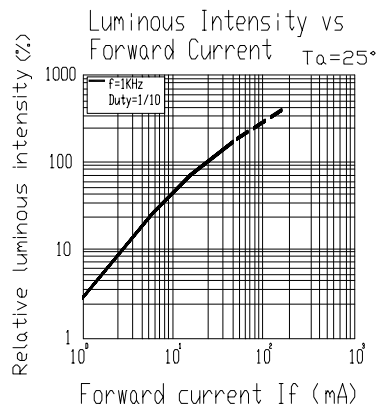
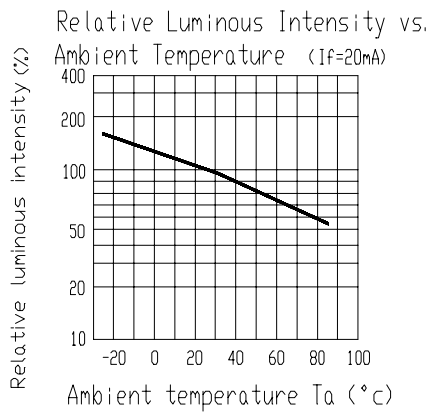
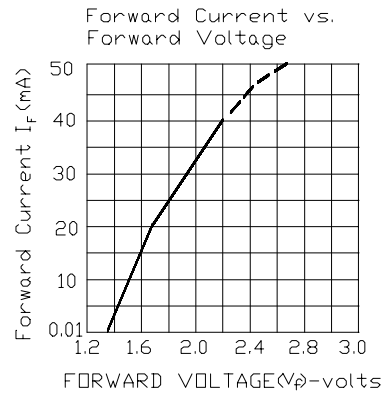
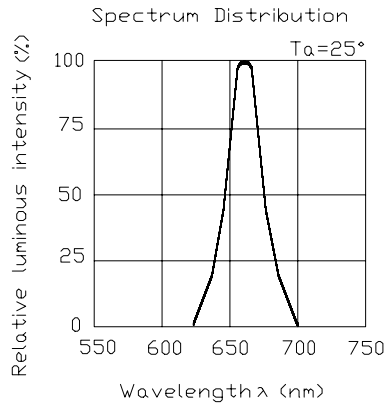
Parameter	Symbol	Rating	Unit
Forward Current	I_F	40	mA
Operating Temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260 ± 5	$^\circ\text{C}$
Power Dissipation	P_d	110	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	$I_F(\text{Peak})$	180	mA
Reverse Voltage	V_R	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	700	1000	-----	mcd	$I_F=20\text{mA}$
Viewing Angle	$2\theta_{1/2}$	----	12	----	deg	$I_F=20\text{mA}$
Peak Wavelength	λ_p	----	660	-----	nm	$I_F=20\text{mA}$
Dominant Wavelength	λ_d	----	643	----	nm	$I_F=20\text{mA}$
Spectrum Radiation Bandwidth	$\Delta\lambda$	----	20	----	nm	$I_F=20\text{mA}$
Forward Voltage	V_F	1.5	1.7	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



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■ Reliability test items and conditions

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Soldering Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ∩ 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°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	I _F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1