

■ Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	20	mA
Peak Forward Current*	I_{FP}	160	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	70	mW
Electrostatic discharge	E_{SD}	400	V
Operation Temperature	T_{opr}	-25~+80	°C
Storage Temperature	T_{stg}	-40~+80	°C
Lead Soldering Temperature*	T_{sol}	Max. 230°C for 5sec Max.	

* I_{FP} Conditions: Pulse Width ≤ 10 msec duty $\leq 1/10$

* T_{sol} Conditions: 3mm from the base of the epoxy bulb

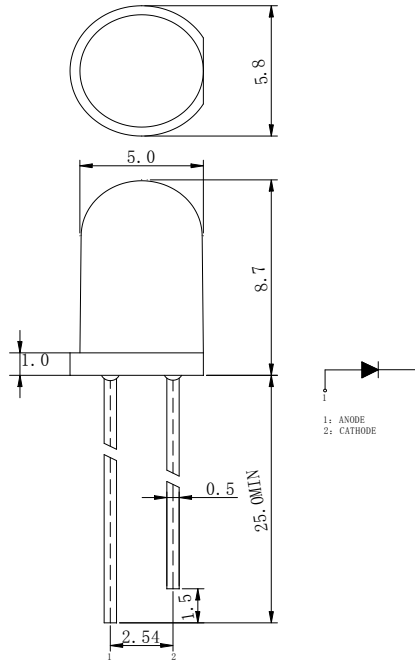
■ Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=20$ mA	3.2	3.4	3.6	V
Reverse Current	I_R	$V_r=5$ V	--	--	5	uA
50% Power Angle	$2\theta_{1/2}$	$I_F=20$ mA	--	25\30	--	deg
Luminous Intensity	I_v	$I_F=20$ mA	100		150	mcd
Peak Wavelength	λ_P	$I_F=20$ mA	380	--	385	nm
Recommend Forward Current	$I_F(\text{rec})$	--	--	15-20	--	mA

Notes:

- 1.Absolute maximum ratings $T_a=25^\circ\text{C}$.
- 2.Tolerance of measurement of forward voltage ± 0.1 V.
- 3.Tolerance of measurement of peak Wavelength ± 2.0 nm.
- 4.Tolerance of measurement of luminous intensity $\pm 15\%$.

■ Package Dimensions And Materials



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Chip		Lens Color
Material	Emitting Color	
INGaALP	Violet	Water clear

Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is $\pm 0.2\text{mm}$ unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.
4. Burr around bottom of epoxy may be 0.5mm max..

■ Reliability Performance

1. Test Items And Result

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Room Temperature DC Operating Life Test	$T_a=25^{\circ}\text{C}\pm 5^{\circ}\text{C}$, $I_F=20\text{mA}$	1000 hrs	5pcs	0/1
Environment Test	Thermal Shock Test	$-10^{\circ}\text{C}\pm 5^{\circ}\text{C}\longleftrightarrow +100^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 5min. 10sec. 5min.	50 cycles	5pcs	0/1
	Temperature Cycle Test	$-55^{\circ}\text{C}\pm 5^{\circ}\text{C}\longleftrightarrow +85^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 30min. 5min. 30min.	50 cycles	5pcs	0/1
	High Temperature & High Humidity Test	$T_a=85^{\circ}\text{C}\pm 5^{\circ}\text{C}$ $\text{RH}=85\%\pm 0.5\% \text{RH}$	1000 hrs	5pcs	0/1
	High Temperature Storage	$T_a=100^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 hrs	5pcs	0/1
	Low Temperature Storage	$T_a=-55^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 hrs	5pcs	0/1
Mechanical Test	Resistance to Soldering Heat	$T_a=260^{\circ}\text{C}\pm 5^{\circ}\text{C}$	5sec.	5pcs	0/1
	Lead Integrity	Load 2.5N(0.25kgf) $0^{\circ} \sim 90^{\circ} \sim 0^{\circ}$	3times	5pcs	0/1

2. Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V_F	$I_F=20\text{mA}$		U.S.L.*1.2
Reverse Current	I_R	$V_R=5\text{V}$		U.S.L.*2.2
Luminous Intensity	I_v	$I_F=20\text{mA}$	L.S.L.** $\times 0.7$	

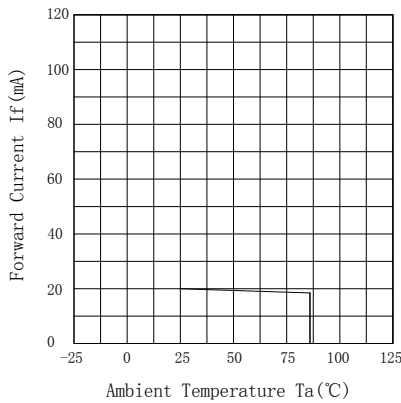
U.S.L.* : Upper Standard Level

L.S.L.** : Lower Standard Level

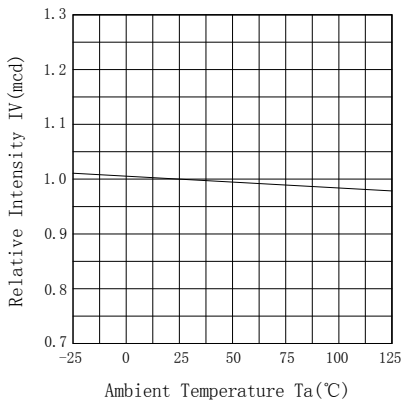
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

■ Typical Optical/Electrical Characteristics Curves
(Ta=25°C Unless Otherwise Noted)

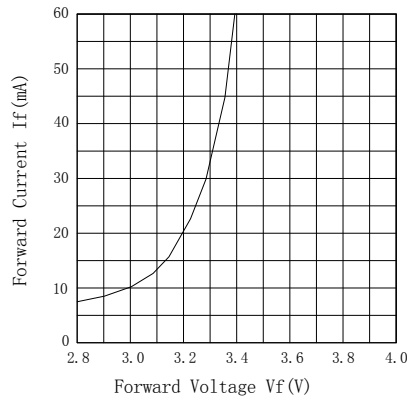
Forward Current vs.Ambient Temperature



Relative Intensity vs.Ambient Temperature



Forward Current vs.Forward Voltage



Forward Voltage vs.Ambient Temperature

