KP3528I81 (KLP-32I-81)

1. Descriptions

The KP3528I81 (KLP-32I-81) is a highly efficient infrared LED (GaAlAs) composed of PLCC-2 PKG, which provides low thermal resistance and reliable performance.

2. Features

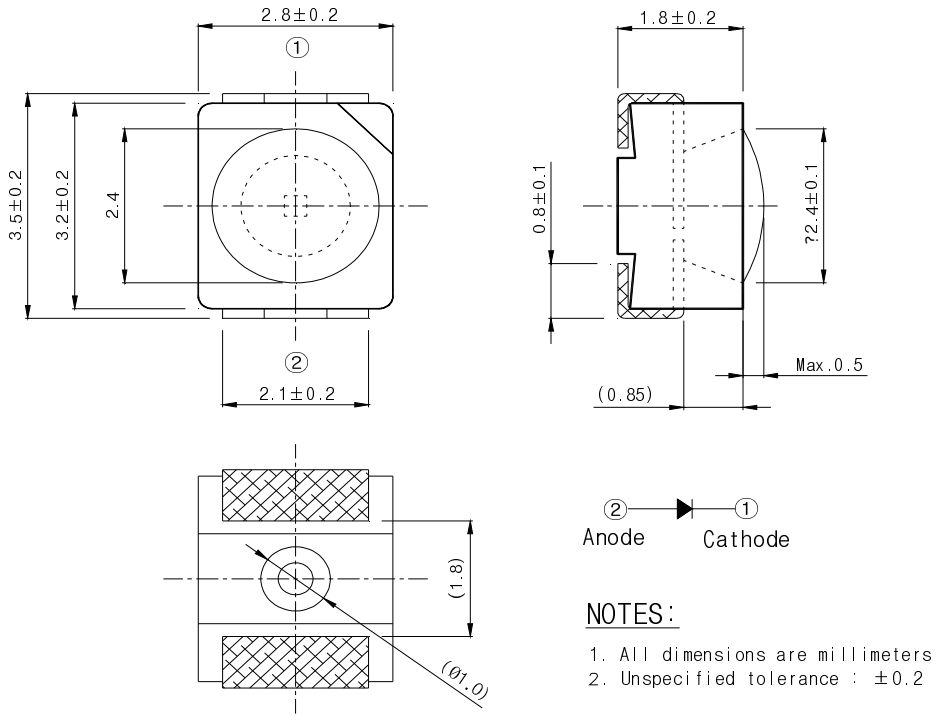
- Small Footprint Surface Mount Package (3.5 L × 2.8 W × 1.8 H [mm³])
- Typical Forward Voltage(VF) : 1.55 V @ Forward Current(IF)=50mA
- Operation Temperature from -40℃ to +100℃
- Soldering methods : IR reflow soldering
- Taping : 8 ㎜ conductive black carrier tape & antistatic clear cover tape

3. Application

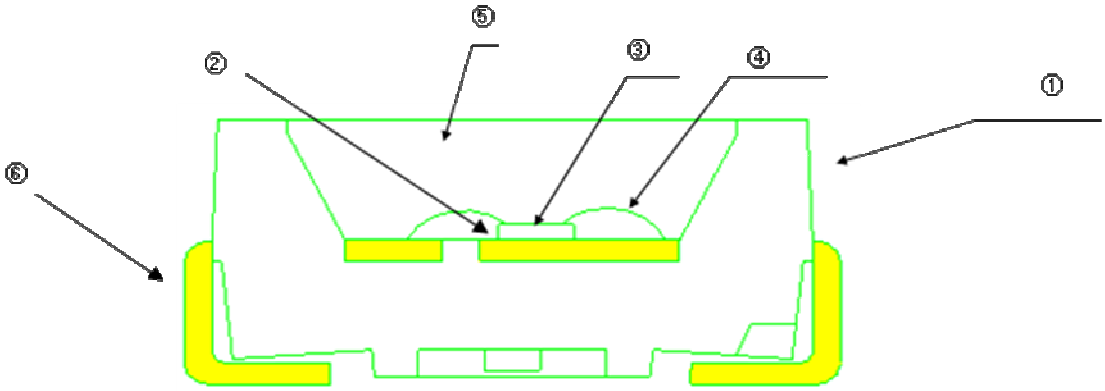
- Photo interrupters
- Industrial electronics
- For drive and control circuits
- Sensor technology
- Alarm and safety equipment
- IR free air transmission

4. Outline Dimensions and Material Descriptions

◆ Outline Dimensions



◆ Material Descriptions



No.	Item	Material
①	Package	PPA
②	Paste	Ag Epoxy
③	LED Chip	GaAlAs
④	Wire	Au
⑤	Encapsulant	Clear Silicone
⑥	Lead	Fe Alloy

5. Absolute Maximums

Item	Symbol	Min.	Max.	Unit	Conditions
Forward Current	I_F	-	100	mA	
Peak Forward Current*1	I_{FP}	-	1.0	A	
Power Dissipation	P_D	-	200	mW	
Reverse Voltage	V_R	-	5	V	
Operating Temperature	T_{OP}	-40	100	℃	
Storage Temperature	Ts	-40	100	℃	
Soldering Temperature*2	T_{sol}	-	260	℃	5 Sec

*1.Duty Ratio : 1%, @60 ㎐

*2. Soldering time : 5 Sec

6. Electro-Optical Characteristics (T_A = 25℃)

Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	1.5	1.9	2.7	V	I_F=300mA, 200us(Test Time)
Total radiant flux	Φ_e	-	13.5	-	mW	I_F=50mA
Radiant intensity	I_e	3.0	6.0	9.0	mW/sr	I_F=50mA
Peak wavelength	λ_P	-	810	-	nm	I_F=50mA
Reverse current	I_R	-	-	10	μA	V_R=5V
FWHM	△λ	-	45	-	nm	I_F=50mA
Half angle	△Θ	-	120	-	deg	I_F=50mA

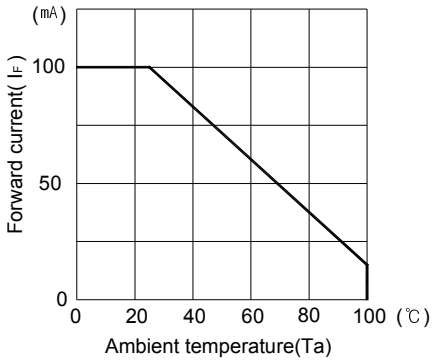
7. Ranks

◆ VF Rank @ IF = 300 mA, 200us(Test Time)

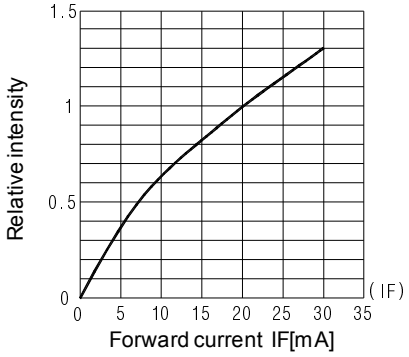
Forward Voltage [V]	Radiant intensity [mW/sr]	Wavelength [nm]
A : 1.5 ~ 1.8		
B : 1.8 ~ 2.0		
C : 2.0 ~ 2.2		
D : 2.2 ~ 2.4		
E : 2.4 ~ 2.7		

8. Characteristic Graphs

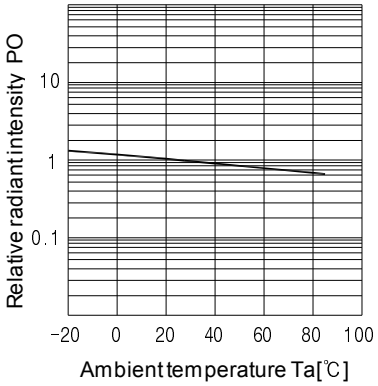
Forward current vs. Ambient temperature



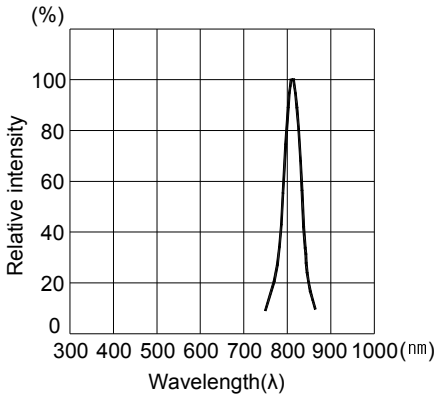
Radiant Intensity vs. Forward current



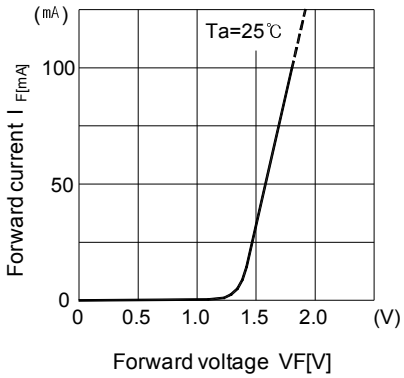
Relative radiant intensity vs. Ambient temperature



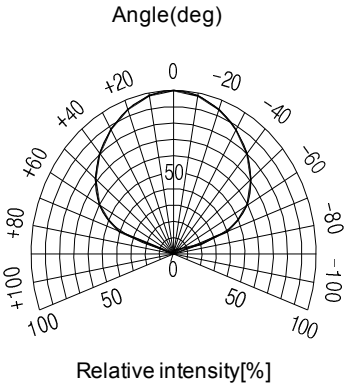
Relative intensity vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern



The contents of this data sheet are subject to change without advance notice for the purpose of improvement.
When using this product, would you please refer to the latest specifications.