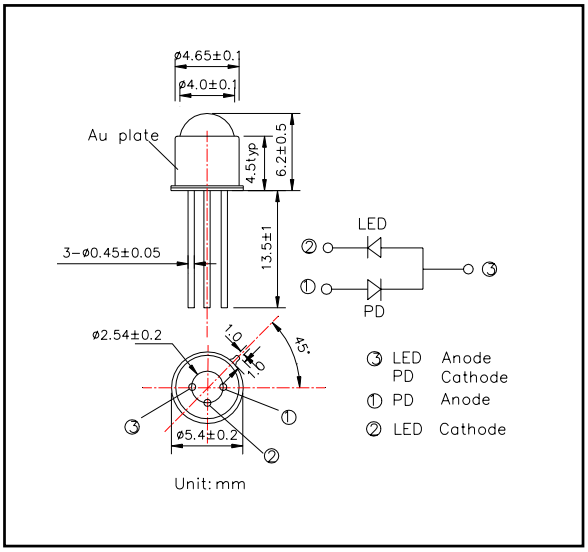
L780/PD010-40D32

High Power LED with PD Monitor

L780/PD010-40D32 consists of a GaAlAs LED 780nm and a Si-PD mounted onTO-18 stem hermetical sealed with a glass ball lens can,
and is designed to moniter reflected light through detector for controlling its own output power

♦Outer dimension (Unit: mm)



♦Specifications

1) Product Name	LED Lamp with PD Monitor
2) Type No.	L780/PD010-40D32
3) Chip	
(1) Chip material	GaAlAs, Si (PIN)
(2) Peak wavelength	780nm
4) Package	
(1) Stem	TO-18
(2) Lens	Φ5 glass ball lens
(3) Can	Metal Can (Gold Plate)

♦Absolute Maximum Ratings [Ta=25°C]

Device	Item	Symbol	Maximum Rated	Unit
LED	Power Dissipation	P_D	200	mW
LED	Forward Current	I_F	100	mA
LED	Pulse Forward Current	I_{FP}	500	mA
LED	Reverse Voltage	V_R	5	V
PD	Reverse Voltage	V_R	100	V
	Operating Temperature	T_{OPR}	-30 ~ +85	°C
	Storage Temperature	T_{STG}	-30 ~ +100	°C
	Soldering Temperature	T_{SOL}	260	°C

‡Pulse Forward Current condition: duty=1% and tw=10us.
‡Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

♦Electro-Optical Characteristics [**Ta**=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=50mA		1.80	2.00	V
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=50mA		12.0		mW
Radiant Intensity	I_E	I_F=50mA		40.0		mW/sr
Peak Wavelength	λ_P	I_F=50mA	760	780	800	nm
Half Width	$\Delta\lambda$	I_F=50mA		35		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±15		deg.
Rise Time	tr	I_F=50mA		80		ns
Fall Time	tf	I_F=50mA		80		ns
Output Current	I_L	V_R=0V		300		uA
Dark Current	I_D	V_R=10V			10	nA

‡Total Radiated Power is measured by Photodyne #500.
‡Radiant Intensity is measured byTektronix J-6512

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