

## L1300-35xxx High Power InGaAsP IR LED

The series of L1300-35xxx is an InGaAsP LED mounted on a metal stem and covered with epoxy resin or hermetically sealed with Ø5 glass-lens can. On forward bias, it emits a high power radiation which peaks at 1300nm.

### Specifications

- (1) Chip material      InGaAsP/InP
- (2) Peak wavelength    1300nm

### Package, Lens and Outer Dimension drawing

Part No.	Stem type	Polarity of stem	Lens structure	Outer dimension drg.
L1300-35K00	TO-46	cathode	epoxy resin	6
L1300-35K32	TO-46	cathode	spherical glass	7
L1300-35K42	TO-46	cathode	aspheric glass	8
L1300-35M00	TO-18	cathode	epoxy resin	9
L1300-35M32	TO-18	cathode	spherical glass	7
L1300-35T00	TO-18	cathode	epoxy resin	9
L1300-35T32	TO-18	cathode	spherical glass	7
L1300-35T52	TO-18	cathode	flat glass Ø3	10

### Absolute Maximum Ratings

Item	Symbol	Maximum Rate	ValueUnit	Ambient Temperature
Power Dissipation	$P_D$	120	mW	$T_a=25^\circ\text{C}$
Forward Current	$I_F$	100	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	$I_{FP}$	1	A	$T_a=25^\circ\text{C}$
Reverse Voltage	$V_R$	3	V	
Operating Temperature	$T_{OPR}$	-20 ~ +90	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	260	$^\circ\text{C}$	

\* Pulse Forward Current condition : duty=1% and  $T_w=1\mu\text{s}$ .

### Electro-Optical Characteristics ( $T_a=25^\circ\text{C}$ )

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	$V_F$	$I_F=20\text{mA}$		0.8	1.3	V
Reverse Current	$I_R$	$V_R=3\text{V}$			10	$\mu\text{A}$
Peak Wavelength	$\lambda_p$	$I_F=20\text{mA}$	1250	1300	1350	nm
Half Width	$\angle\lambda$	$I_F=20\text{mA}$		100		nm
Rise Time	$t_r$	$I_F=20\text{mA}$		10		ns
Fall Time	$t_f$	$I_F=20\text{mA}$		10		ns

### Total Radiant Power and Radiant Intensity at $I_F=50\text{mA}$ ( $T_a=25^\circ$ )

Part No.	Total Radiant Power unit: mW			Viewing Half Angle
	Minimum	Typical	Maximum	
L1300-35K00	0.12	0.25		$\pm 50^\circ$
L1300-35K32	0.08	0.15		$\pm 15^\circ$
L1300-35K42	0.08	0.15		$\pm 6^\circ$
L1300-35M00	0.12	0.25		$\pm 50^\circ$
L1300-35M32	0.08	0.15		$\pm 15^\circ$
L1300-35T00	0.12	0.25		$\pm 60^\circ$
L1300-35T32	0.08	0.15		$\pm 15^\circ$
L1300-35T52	0.05	0.10		$\pm 55^\circ$

Figure 1 type 35K00

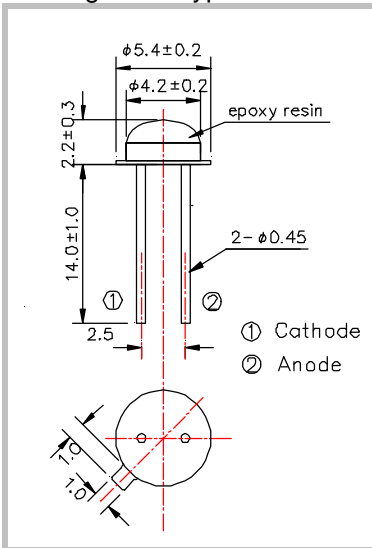


Figure 2 type 35(K/M/T)32

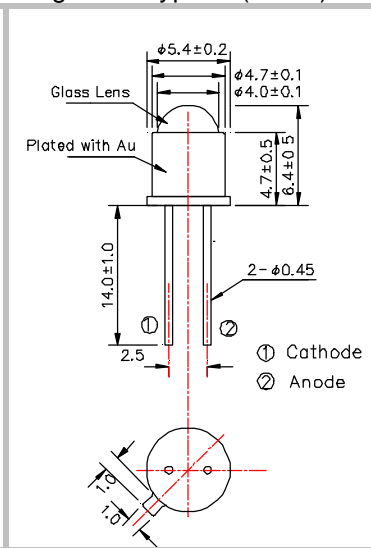


Figure 3 type 35K42

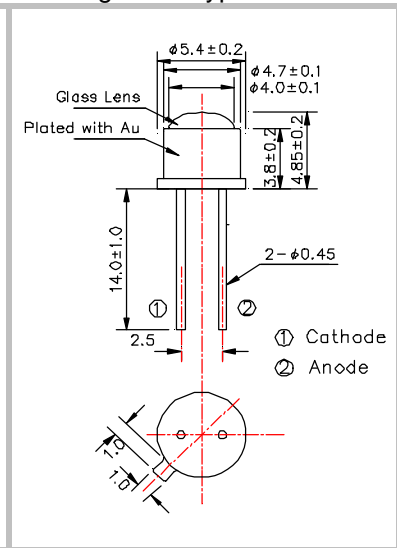


Figure 4 type 35(M/T)00

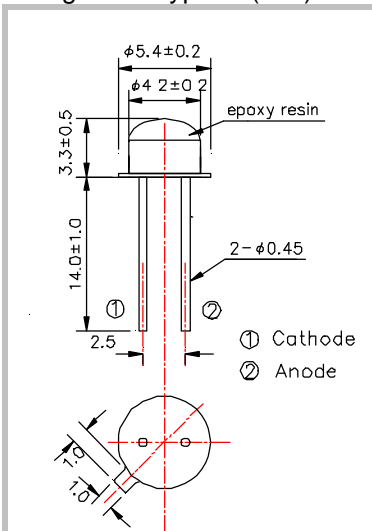


Figure 5 type 35T52

