

L1450-35xxx High Power InGaAsP IR LED

The series of L1450-35xxx 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 1450nm.

Specifications

- (1) Chip material InGaAsP/InP
- (2) Peak wavelength 1450nm

Package, Lens and Outer Dimension drawing

Part No.	Stem type	Polarity of stem	Lens structure	Outer dimension drg.
L1450-35K00	TO-46	cathode	epoxy resin	6
L1450-35K32	TO-46	cathode	spherical glass	7
L1450-35K42	TO-46	cathode	aspheric glass	8
L1450-35M00	TO-18	cathode	epoxy resin	9
L1450-35M32	TO-18	cathode	spherical glass	7
L1450-35T00	TO-18	cathode	epoxy resin	9
L1450-35T32	TO-18	cathode	spherical glass	7
L1450-35T52	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° C
Forward Current	I _F	100	mA	T _a =25° C
Pulse Forward Current	I _{FP}	1	A	T _a =25° C
Reverse Voltage	V _R	3	V	
Operating Temperature	T _{OPR}	-20 ~ +90	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	260	°C	

* Pulse Forward Current condition : duty=1% and Tw=1µs.

Electro-Optical Characteristics (Ta=25° C)

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		0.8	1.3	V
Reverse Current	I _R	V _R =3V			10	µA
Peak Wavelength	λ _p	I _F =20mA	1400	1450	1500	nm
Half Width	∠λ	I _F =20mA		100		nm
Rise Time	tr	I _F =20mA		10		ns
Fall Time	tf	I _F =20mA		10		ns

Total Radiant Power and Radiant Intensity at I_F=50mA (Ta=25°)

Part No.	Total Radiant Power unit: mW			Viewing Half Angle
	Minimum	Typical	Maximum	
L1450-35K00	0.12	0.25		± 50°
L1450-35K32	0.08	0.15		± 15°
L1450-35K42	0.08	0.15		± 6°
L1450-35M00	0.12	0.25		± 50°
L1450-35M32	0.08	0.15		± 15°
L1450-35T00	0.12	0.25		± 60°
L1450-35T32	0.08	0.15		± 15°
L1450-35T52	0.05	0.10		± 55°

Figure 1 type 35K00

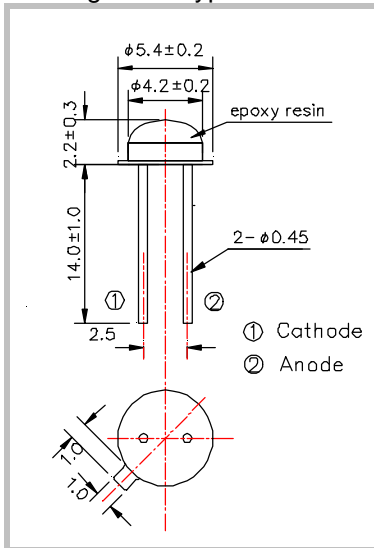


Figure 2 type 35(K/M/T)32

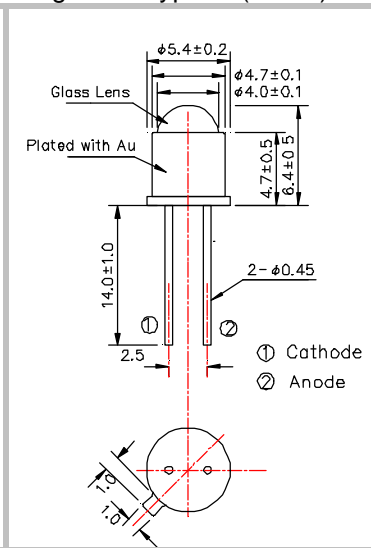


Figure 3 type 35K42

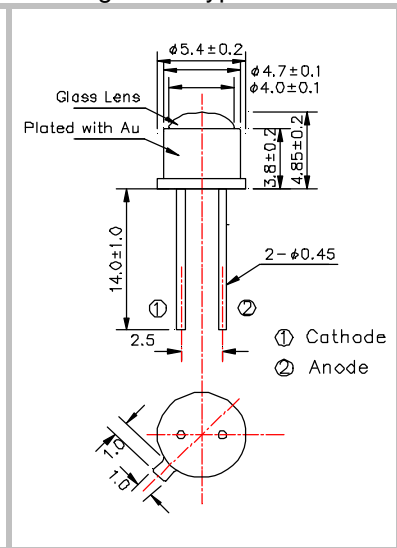


Figure 4 type 35(M/T)00

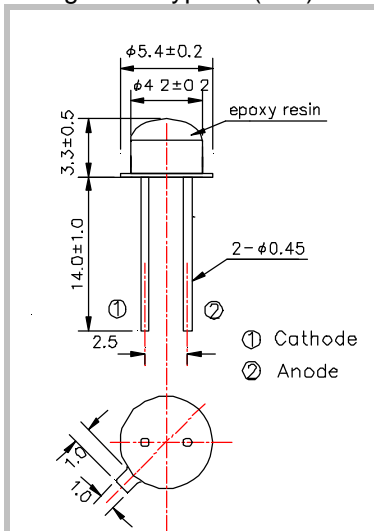


Figure 5 type 35T52

