

L1550-35xxx High Power InGaAsP IR LED

The series of L1550-35xxx 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 1550nm.

Specifications

- (1) Chip material InGaAsP/InP
 (2) Peak wavelength 1550nm

Package, Lens and Outer Dimension drawing

Part No.	Stem type	Polarity of stem	Lens structure	Outer dimension drg.
L1550-35K00	TO-46	cathode	epoxy resin	6
L1550-35K32	TO-46	cathode	spherical glass	7
L1550-35K42	TO-46	cathode	aspheric glass	8
L1550-35M00	TO-18	cathode	epoxy resin	9
L1550-35M32	TO-18	cathode	spherical glass	7
L1550-35T00	TO-18	cathode	epoxy resin	9
L1550-35T32	TO-18	cathode	spherical glass	7
L1550-35T52	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	μA
Peak Wavelength	λ_p	$I_F=20\text{mA}$	1500	1550	1600	nm
Half Width	$\angle\lambda$	$I_F=20\text{mA}$		100		nm
Rise Time	tr	$I_F=20\text{mA}$		10		ns
Fall Time	tf	$I_F=20\text{mA}$		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	
L1550-35K00	0.12	0.25		$\pm 50^\circ$
L1550-35K32	0.08	0.15		$\pm 15^\circ$
L1550-35K42	0.08	0.15		$\pm 6^\circ$
L1550-35M00	0.12	0.25		$\pm 50^\circ$
L1550-35M32	0.08	0.15		$\pm 15^\circ$
L1550-35T00	0.12	0.25		$\pm 60^\circ$
L1550-35T32	0.08	0.15		$\pm 15^\circ$
L1550-35T52	0.05	0.10		$\pm 55^\circ$

Figure 1 type 35K00

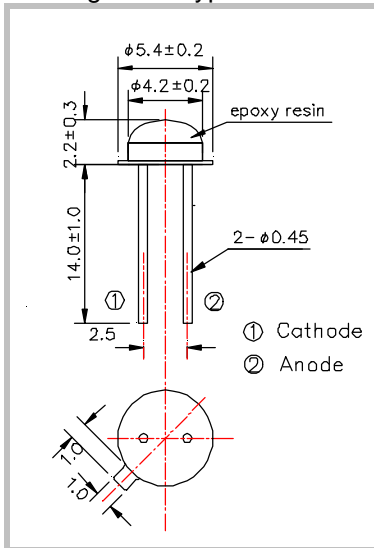


Figure 2 type 35(K/M/T)32

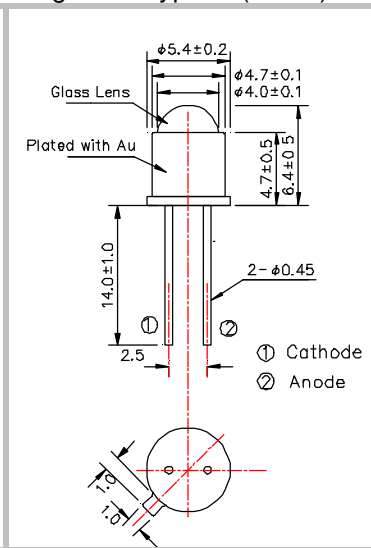


Figure 3 type 35K42

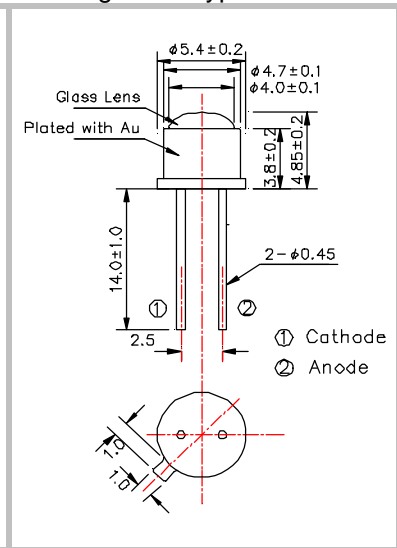


Figure 4 type 35(M/T)00

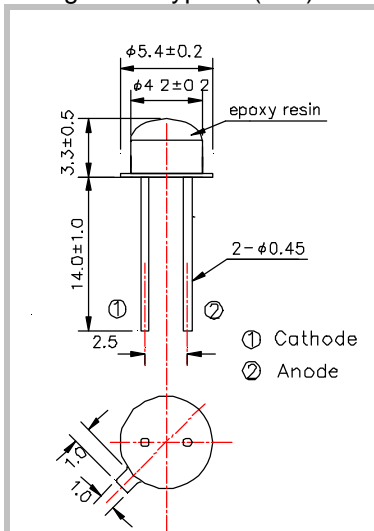


Figure 5 type 35T52

