

Preliminary

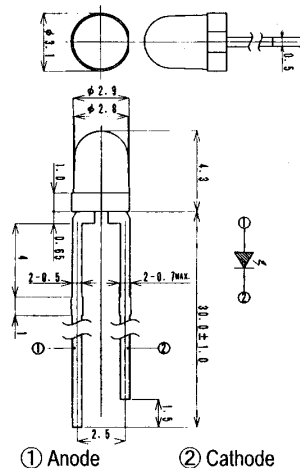
Radiation	Type	Technology	Case
Infrared	Standard	AlGaAs/AlGaAs	3 mm plastic lens

Description

High-power, high-speed, compact, high reliability, double heterostructure with removed substrate, without standoff leads

Applications

Optical communications, optical switches, optical sensors, medical applications, safety equipment



Maximum Ratings

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		I_F	60	mA
Peak forward current	$(t_p \leq 10 \mu\text{s}, T = 10 \text{ ms})$	I_{FM}	500	mA
Reverse voltage	$I_R = 100 \mu\text{A}$	V_R	5	V
Power dissipation	P_D	T_{amb}	120	mW
Operating temperature range		T_{amb}	-20 to +85	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-30 to +100	$^{\circ}\text{C}$
Junction temperature		T_j	100	$^{\circ}\text{C}$
Soldering temperature*		T_{sd}	260	$^{\circ}\text{C}$

*Time 5 sec. max, position: up to 3 mm from the body

Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 50 \text{ mA}$	V_F		1.7	2.0	V
Radiant power	$I_F = 50 \text{ mA}$	Φ_e	12	18		mW
Radiant intensity	$I_F = 50 \text{ mA}$	I_e	14	20		mW/sr
Peak wavelength	$I_F = 20 \text{ mA}$	λ_p	800	810	820	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		30		nm
Viewing angle		φ		40		deg.