

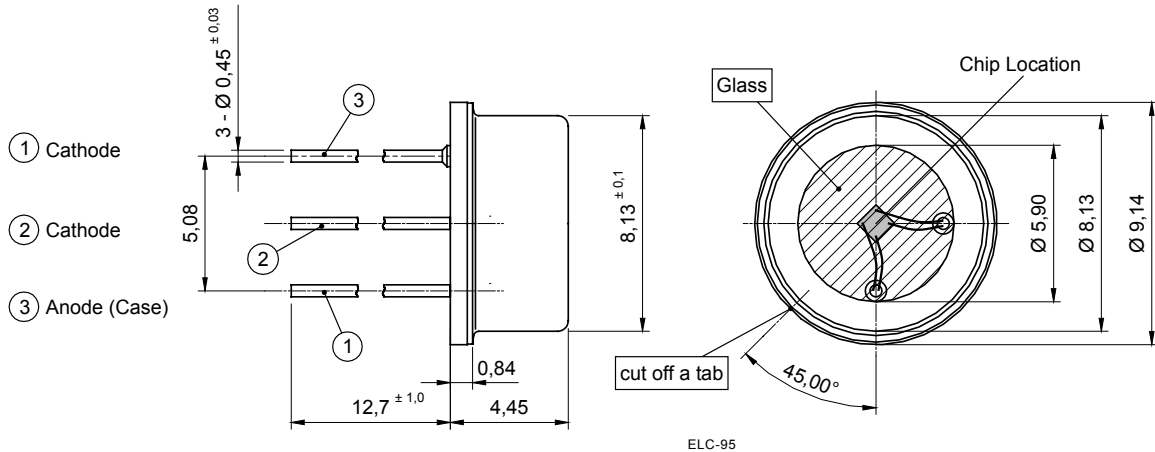
Radiation	Type	Technology	Case
Infrared	1 mm ² -Powerchip	AlGaAs/AlGaAs	TO-39, flat window

Description

High-power, high-speed, double hetero structure

Applications

Optical communications, safety equipment, automation



Maximum Ratings

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)*		I _F	500	mA
Peak forward current*	(t _p ≤ 50 μs, t _p /T = 1/2)	I _{FM}	1000	mA
Surge forward current	(t _p ≤ 10 μs)	I _{FSM}	10000	mA
Reverse voltage	I _R = 100 μA	V _R	5	V
Operating temperature range		T _{amb}	-40 to +100	°C
Storage temperature range		T _{stg}	-40 to +100	°C

*with a good thermal contact to a heat sink

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F = 300 mA	V _F		1.5	1.8	V
Radiant power	I _F = 300 mA	Φ _e		45		mW
Radiant intensity	I _F = 300 mA	I _e		20		mW/sr
Peak wavelength	I _F = 300 mA	λ _p	870	880	900	nm
Spectral bandwidth at 50%	I _F = 300 mA	Δλ _{0.5}		45		nm
Viewing angle	I _F = 100 mA	2φ		100		deg.
Switching time	I _F = 100 mA	t _r , t _f		30		ns