

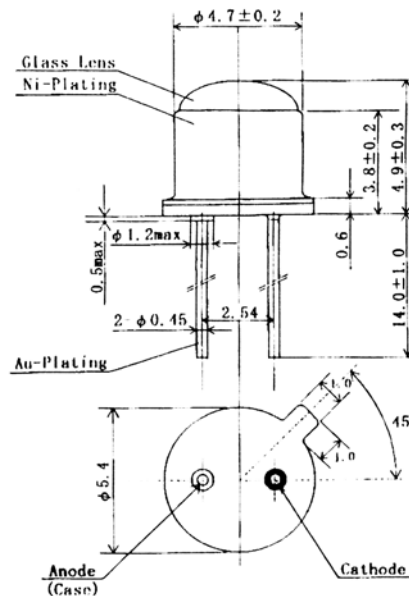
Radiation	Type	Technology	Case
Infrared	Lens	AlGaAs/AlGaAs	TO-18

### Description

High-power, high-speed, double hetero structure with removed substrate, in TO-18 housing

### Applications

Optical communications, switches, encoders, safety equipment



### Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		$I_F$	100	mA
Peak forward current	$(t_p \leq 10 \mu\text{s}, T = 10 \text{ ms})$	$I_{FM}$	1000	mA
Reverse voltage	$I_R = 100 \mu\text{A}$	$V_R$	5	V
Power dissipation		$P_D$	200	mW
Operating temperature range		$T_{amb}$	-30 to +100	$^\circ\text{C}$
Storage temperature range		$T_{stg}$	-40 to +125	$^\circ\text{C}$

### Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 50 \text{ mA}$	$V_F$		1.5	2.0	V
Radiant power	$I_F = 50 \text{ mA}$	$\Phi_e$	7	10		mW
Peak wavelength	$I_F = 20 \text{ mA}$	$\lambda_p$	860	875	890	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		45		nm
Viewing angle	$I_F = 20 \text{ mA}$	$2\phi$		10		deg.
Cut-off frequency	$I_F = 50 \pm 10 \text{ mA p-p}$	$f_c$		12		MHz