

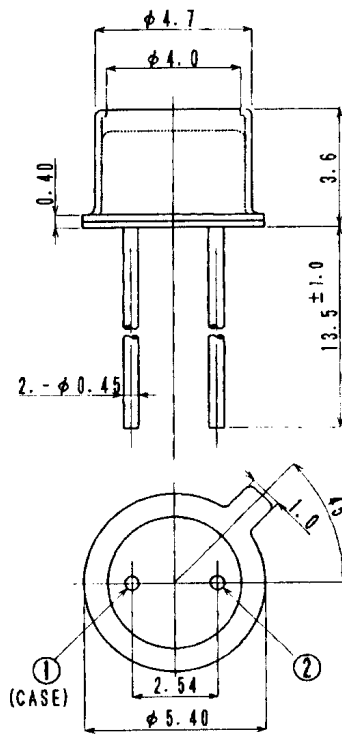
Color	Type	Technology	Case
Red	Flat glass cap	AllnGaP/GaAs	TO-18

**Description**

High-power, high-speed LED in TO-18 housing

**Applications**

Optical communications, switches, encoders, safety equipment



① Cathode      ② Anode

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		$I_F$	50	mA
Peak forward current	$(t_p \leq 10 \mu\text{s}, T = 10 \text{ ms})$	$I_{FM}$	500	mA
Reverse current	$V_R = 5 \text{ V}$	$I_R$	10	$\mu\text{A}$
Power dissipation		$P_D$	130	mW
Operating temperature range		$T_{amb}$	-20 to +100	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-30 to +100	$^{\circ}\text{C}$
Junction temperature		$T_j$	100	$^{\circ}\text{C}$
Lead soldering temperature	5 sec max, 3 mm from the body	$T_{sol}$	260	$^{\circ}\text{C}$

## Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 20 \text{ mA}$	$V_F$		2.3	2.5	V
Forward voltage	$I_F = 50 \text{ mA}$	$V_F$		2.45	2.65	V
Radiant power	$I_F = 20 \text{ mA}$	$\Phi_e$	1.8	2.3		mW
Radiant power	$I_F = 50 \text{ mA}$	$\Phi_e$	4.0	5.1		mW
Radiant intensity	$I_F = 20 \text{ mA}$	$I_e$		2.8		mW/sr
Radiant intensity	$I_F = 50 \text{ mA}$	$I_e$		6.5		mW/sr
Luminous intensity	$I_F = 20 \text{ mA}$	$I_v$		75		mcd
Luminous intensity	$I_F = 50 \text{ mA}$	$I_v$		155		mcd
Luminous flux	$I_F = 20 \text{ mA}$	$\Phi_v$		70		mlm
Luminous flux	$I_F = 50 \text{ mA}$	$\Phi_v$		150		mlm
Peak wavelength	$I_F = 20 \text{ mA}$	$\lambda_p$	660	670	680	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		16		nm
Viewing angle	$I_F = 20 \text{ mA}$	$\varphi$		100		deg.
Switching time	$I_F = 20 \text{ mA}$	$t_r, t_f$		10		ns