



OPTO TECHNOLOGY

GaAlAs INFRARED EMITTER

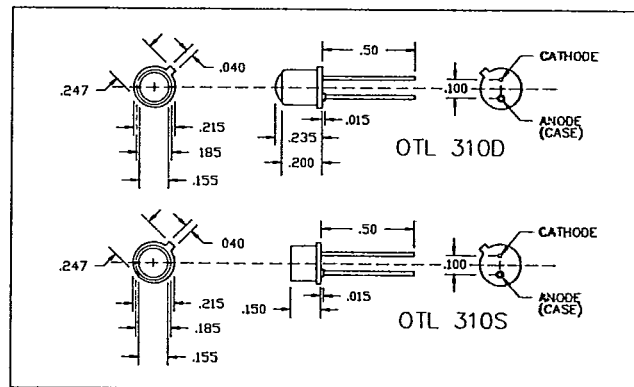
TYPE OTL 310

Features

- High power output
- Hermetically sealed package
- Solid header for better thermal characteristics

Description

Opto Technology's OTL 310D and OTL 310S feature high power GaAlAs LEDs mounted in a TO-46 metal case. With a peak wavelength of 880 nanometers, overall system efficiency is increased when used with silicon detectors. Special screening of these devices available upon request.

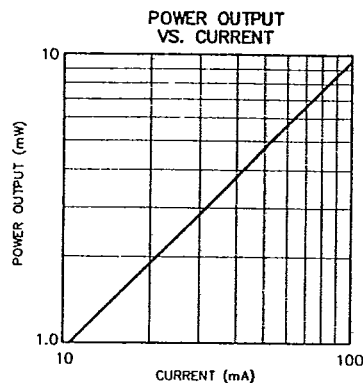


Absolute Maximum Ratings⁽³⁾

Reverse Voltage	5 V
Continuous Forward Current	100 mA
Peak Forward Current (PW = 10 μ s; 100 Hz)	3 A
Power Dissipation	200 mW ⁽¹⁾
Storage Temperature Range	-65°C to +150°C
Operating Temperature Range	-65°C to +150°C
Lead Soldering Temperature (for 5 sec. with soldering iron)	240°C ⁽²⁾

Notes:

- (1) Derate 1.6 mW/°C above 25°C.
- (2) RMA flux is recommended. Duration can be extended for 10 sec. max. when wave soldering.
- (3) T_A = 25°C unless otherwise noted.



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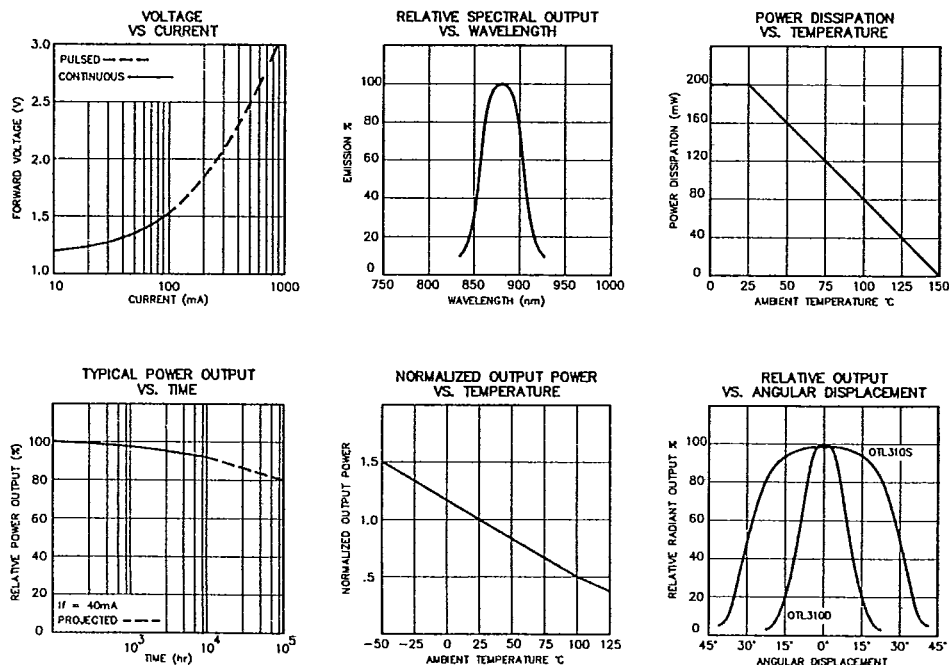
T-41-13

Electrical Characteristics: (25°C)

INFRARED EMITTER		SYMBOL	MIN.	TYP.	MAX.	UNITS
Total Power Output $I_F = 100\text{mA}$		P_O	8	9.5		mW
RADIANT INTENSITY $I_F = 50\text{mA}$, .01 Sr	OTL 310D(S)-1	I_E	15 (4.5)			mW/Sr
	OTL 310D(S)-2		30 (5)		60 (7.5)	
	OTL 310D(S)-3		50 (6)			
Forward Voltage $I_F = 100\text{mA}$		V_F		1.5	1.8	V
Reverse Current $V_R = 3\text{V}$		I_R			100	μA
Peak Emission Wavelength $I_F = 100\text{mA}$		λ_P		880		nm
Spectral Bandwidth @ 50%		$\Delta\lambda$		50		nm
Spectral Shift with Temperature		$\Delta\lambda_P/\Delta T$		.30		nm/°C
Half Intensity Beam Angle	OTL 310D	ϕ_H		20		Deg.
	OTL 310S			80		Deg.
Rise or Fall Time		t_r, t_f		500		nS

EMITTERS

TYPICAL PERFORMANCE CURVES



Opto Technology reserves the right to make changes at any time to improve product design and reliability.

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